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THE

THE DUTIES OF A REGIMENTAL SURGEON.

CHAPTER XI.

SURGEONS DISSUADED FROM USING BILLETS, AND OF THE PROPRIETY OF KEEPING A MEDICAL REGISTER.

THOUGH we took notice in a former Chapter of the danger of having the mind alienated from Medical Subjects by aſſociating with the Officers, nothing was ſaid relative to Billets, notwitſtanding they conduce in like manner to this end. In quarters theſe are allowed to the officers in common with the privates. To dwell always in public houſes is to dwell almoſt conſtantly in the midſt of noiſe, buſtle, and revelling. In ſuch places a man can never be alone, he is liable to interruption on every occaſion. It is true,

this may happen, not only oftener in one place than another; but the company he is expoſed to, in this manner, will be in ſome places more diſagreeable than in others, and more unfit for a perſon of genteel education to mingle with, if he could well avoid it.

In ſome towns it is cuſtomary for every gueſt, of whatever rank, to meet in the ſame room. In a place where this cuſtom prevails he will ſoon find himſelf ſurrounded with a crowd, drinking, ſmoaking, (for this is the cuſtom in many ſuch inns in England) and converſing promiſcuouſly together; no perſon concerns himſelf with the employment of another, or refrains the more from indulging his own inclinations, the cuſtom of the place giving them this ſanction. Here the reader is not to ſuppoſe I am ſpeaking of a London Coffee-houſe, where every gueſt may if he chuſes have a ſeparate box, and may either write or read at his eaſe, one perſon giving little diſturbance to another. It is a very different place I am deſcribing; it may be a ſmall room in a mean inn, where all ſit round the ſame table, nay the Cobler, and the Mayor of the Town together: * and where there

* I ſpeak from experience

may

may not be a place in the houſe proper to retire to on ſuch occaſions.

In this dilemma, to ſtudy, is impoſſible. It is, we ſhall ſuppoſe, the coldeſt ſeaſon of the year, and the weather even inclement for the ſeaſon. There is not a ſecond fire in the inn ſave in the kitchen, for it is a part of the kingdom where fire becomes a material article in houſe-keeping. The Surgeon may indeed retire to his bed-chamber, but he will not be allowed a ſeparate fire, without paying ſixpence for what will be conſumed in two or three hours; or what is more common, there is no fire-place in the bed-chamber. What then muſt he do? The alternatives are few; he muſt lay aſide his ſtudies; and, perhaps, for ſelf-defence, be compelled to call for liquor, and join in the noiſe to avoid ſingularity. To betake himſelf to head quarters, and the meſs-room, will be as inconvenient with reſpect to ſtudy; there he will not be ſurrounded with leſs noiſe, though his company will now be more ſelect; if he chuſes neither of theſe, he has no where to fly but to the kitchen. Sad alternative for a mind accuſtomed to different companions! Suppoſe he retires to his bed-chamber, and

that there is a fire-place in it; his ſmall pay cannot afford a fire at ſo enormous a rate. Suppoſe again he wiſhes to walk out, rather than remain among companions ſuch as we have mentioned: the weather is even too inclement to allow of this amuſement, and too cold to permit him to remain long in his chamber with ut a fire; nor will they ſuffer him to ſtay in the kitchen, were he even willing for a time to intermix with ſervants, but remind him, though politely indeed, that there is a fire in the *parlour*. In this a double purpoſe is ſerved. Firſt, they get rid of his incumbrance about the fire; ſecondly, by diſmiſſing him to the *parlour*, there is the greater chance of his ſpending ſixpence in liquor. Beſides, as he is furniſhed by the houſe with a bed, which the law obliges them to give him, they always look on him as a nuiſance; did he expend all his ſubſiſtence in the houſe, it would not ſatisfy them; ſuch is the general diſlike inn-keepers ſhow to the military; indeed, it muſt be confeſſed they have ſome cauſe; for it is a ſevere tax on them: the ſubaltern officer ſuffers by it alſo, becauſe he is often poorly accommodated; and his pay will not afford him to hire lodgings: how-

ever

ever ſome may think this account exaggerated, I mention not only what I have experienced, but have alſo omitted circumſtances that would make the account even leſs credible to perſons that have not felt the various inconveniences attending the life of a ſoldier. An officer of rank is both allowed better accommodations, and is likewiſe better enabled from his pay to make his ſituation comfortable; but one below the rank of a Captain, with only his pay to ſubſiſt him, muſt ſuffer many and great inconveniences.

The Inns, it is acknowledged, are not, however, all of this deſcription. Sometimes we find them extremely commodious. In ſome he will be allowed a room, fire and candle, but never with a good grace, or true good will; for the magiſtrate is frequently obliged to interfere in the officer's behalf, who is compelled often to ſpend money in the houſe, for no other reaſon whatever but to court the countenance of his hoſt. Nay, ſuppoſing the beſt; he is liable to many inconveniences and interruptions. If a friend calls he treats him perhaps, or is treated; or if he endeavours to apologize, that he cannot drink; that liquor does not ſuit his preſent ſtate of

health, ſtill his friend may perſiſt, alledging it may be of ſervice; perhaps, he will hint the refuſal proceeds from parſimony, an accuſation which his pride revolts at; and hence his compliance merely to weaken the force of the inſinuation. In this manner his money is expended, his time waſted, and his mind vitiated. Again, ſuppoſe the weather mild and favourable, ſo that the ſurgeon can retire to his chamber; his bedchamber is not entirely his own; if poſſible he will be put into a double bedded room; here either one of the officers ſhares it with him, or what is much worſe, it is every caſual paſſenger's that pays for it. In both theſe ſituations his inconveniences are great; his comrade will ſpend perhaps ſeveral hours a day in the room, during which it may be almoſt impracticable to purſue his ſtudies; for as his comrade's mind is engaged in different purſuits, he will think himſelf little intereſted in favouring the Doctor's deſigns.

Private lodgings then are by far preferable, but it is not in every town, where he can afford to engage them. The places they are moſt wanted in, are where a ſubaltern can leaſt afford them on his pay. Suppoſe, ſuch a

place

place near London, as deſcribed above, where fire is ſo expenſive, every neceſſary is dear in proportion. A very incommodious room may coſt him above ſix ſhillings a week, he has fire and candle to provide beſides; if he eats at a public houſe, a dinner of the moſt common food, and even then but ſcanty, ſtands him in a ſhilling; which is denominated by them a *parliament dinner*; for there is a law, by which the landlord is obliged to give an officer his dinner for a ſhilling; but in theſe places one ſhilling and ſixpence is the common price; for the parliament dinner is held in a contemptuous light, and the conſequence often is, diſagreeable inſinuations from the landlord, and uncivil ſneers from the attendants. Small beer at the leaſt is two-pence. All this is to come from a guinea a week ſubſiſtence, beſides breakfaſt, clothes, ſhoes, and many other things which muſt occaſionally be purchaſed; can a ſubaltern, *i. e.* the Surgeon afford to hire a room? In the preſent ſtate of his pay, he cannot.

It were to be wiſhed therefore, that the regulations were ſuch, that the Surgeon ſhould be provided with private lodgings, in order to give him the better opportunity of purſuing

his buſineſs, which is of ſo much importance to the corps. If he keeps a journal of every patient's caſe as he ought to do, it will oblige him to ſpend a conſiderable part of the day in writing, and it has already been ſhown how inconvenient, nay almoſt impoſſible this becomes in billets. Some may ſay, he ought to ſpend his time in his hoſpital; let this be his place of ſtudy; and then much of his complaints againſt bad billets, and inconvenient lodgings will ceaſe; but it ſhould be firſt enquired, whether he has an hoſpital; and what are its accommodations? It is probable he has none; for it is generally found alſo that in thoſe places where they are moſt needed, houſes for the accommodation of ſick Soldiers cannot be procured. But allowing there be an hoſpital; we have pointed out in a former part how incommodious they generally are.

To procure the Surgeon a room when the regiment is in quarters ſeems to be neceſſary; but how the expence is to be defrayed may not ſeem ſo obvious; the ſtock purſe we dare hardly mention; it would be hard to rob one officer to ſerve another; yet ſince government has made no proviſion here, ſome regimental ſcheme, we are of opinion, ſhould

be

be thought of. The only one that ſeems practicable is to take the allowance of a ſhilling a day from the non-effective men; or in other words, let him be allowed to pay one of the companies, ſuch as may be agreed on among the corps. Each company has the pay of three privates allotted for the repair of arms and accoutrements; this is one ſhilling and ſixpence a-day. Let him have this for paying the company. This will give him little interruption; for one of the Sérjeants will do the duty for a ſhilling, or even ſixpence a-week. He has only to ſettle his accounts with him once a-week, which will not occupy above half an hour: here will be nine ſhillings and ſixpence a-week at leaſt. It is true he runs a hazard; if a man deſerts in debt, he will be obliged to anſwer it to the Pay-maſter; alſo to repair what may be wanted in the arms of the company, ſince it is for this purpoſe the money is granted by Government; but, on an average, he may ſtill clear a crown, or ſix ſhillings a-week: this will afford him a room, fire, and candles. What is ſaid here is likewiſe meant of the Surgeon's-mate. The non-effective men of another company ſhould be allowed him. The

good

good effects of ſuch a regulation, and encouragement, I am perſuaded, would ſoon appear, by his better attendance on his profeſſional duty. The ſatisfaction this muſt afford a Commanding Officer, of a humane diſpoſition, and the corps in general, will be a ſufficient recompence for the ſmall indulgence allowed him.*

It will be ſaid, the Surgeon's perquiſite, and ſaving from the medicine-money, puts it eaſily in his power to furniſh a private room; but we ſuppoſe the Commanding Officer has taken this out of his hands, and that he muſt ſubſiſt on his pay; for we ſhall afterwards endeavour to ſhew, that ſome regulation is neceſſary reſpecting the medicine-money. This, or ſome ſuch method, ſhould be put in practice, if the pay is to remain as it is at preſent. But another ſcheme ſhall

* Since the peace was concluded, an alteration is made in the non-effective men; only two are allowed now to a regiment of eight companies, in place of three. This comes only to 18l. 5s. per annum: half at leaſt it will take to keep the arms and accoutrements in repair; the ſaving then cannot be above ſixpence a-day. As he may ſometimes be in barracks, this may almoſt be ſufficient at an average; but each Captain ought, for the ſake of his men, to add ſixpence a-week more: the ſame to the mate, if mates are to be continued.

afterwards

afterwards be ſubmitted to the opinion of the public, which appears preferable.

When we conſider the value of a man to Government, a political and patriotic principle, as well as humanity, ſhould influence us to procure every thing the army can afford for his welfare. The death of a private is a loſs to the nation, ſince he coſts conſiderably before he is fit to act as a ſoldier in the defence of his King and country: for, ſuppoſe, at the death of one man, another recruit could be immediately procured, he demands his bounty, which muſt come from the national purſe, independent of his pay, neceſſaries, and accoutrements. In times of war he is a double expence from an augmented bounty, and a double loſs, as men are then doubly neceſſary, and obtained with much difficulty. Every death muſt affect the ſervice, as it is a diminution of the national defence, and ſtrength; and ſurely it muſt ſo far affect the national purſe, as the expence thereby incurred amounts to. If this be allowed, and it appears undeniable, it points out the attention the ſoldiery deſerve in a political view; and, we hope, humanity will be ſufficient to enforce what politics demonſtrate as neceſſary.

Hence

Hence every degree of encouragement ſhould be given to the medical department, where ſo large a ſhare of the ſoldier's welfare is placed.

"Succeſs in war," (ſays Dr. Millar,) depends on preſerving military forces in health and vigour: diſarmed by ſickneſs, the moſt intrepid warriors become a prey to the moſt puſillanimous adverſary; the wealthieſt nations to thoſe of the feweſt reſources, and the ſtronger to the weaker power. Fleets and armies moulder away by diſeaſe: new levies do not ſupply the place of veterans trained to arms, and inured to martial atchievements.

Yet this fundamental branch of the art of war hath not been cultivated: phyſicians only, it hath been ſuppoſed, can beſt judge of it; the moſt unſucceſsful hath been conſulted. The ſimple mathematics of ſhop arithmetic, as it is happily expreſſed by a celebrated political writer, might have corrected theſe ill-founded opinions, Stateſmen might have judged without profeſſional ſkill, and aſcertained the truth by numerical calculation.*"

* Vid. Introd. to Diſ. of the Army in the late war.

Suppoſe the medical department of a regiment is placed on the liberal plan we have proved to be neceſſary, the phyſician, or ſurgeon, that has the appointment, ſhould, on his part, enter into obligations, which the military laws ſhould take care were performed, and this under the penalty of ſevere puniſhment.

This leads me to mention a medical journal. It ſhould be conſidered as a neceſſary part of his duty, to keep a regular journal of every ſick man's caſe that enters his liſt, whoſe complaints are deemed of the leaſt ſerious nature; with a hiſtory of the ſymptoms, and the preſcriptions uſed. A copy of this might be given to the Colonel at ſtated regular periods, and by him, if he thought proper, tranſmitted to the Phyſician and Surgeon-general for their inſpection, particularly ſuch caſes as terminated fatally, in order that they might judge, as far as the caſe ſtated allowed them, whether the Doctor had diſcharged his duty faithfully or otherwiſe: the medical and ſurgical caſes being tranſcribed into ſeparate books, ſhould each be ſent to the reſpective inſpectors; the medical to the Phyſician,

Phyſician, the ſurgical to the Surgeon. The examination of theſe will, no doubt, be ſome additional trouble to the Phyſician and Surgeon-general; but we ſuppoſe their ſalaries are ſufficient to recompenſe them. There is no doubt, however, of their ready compliance with any ſcheme that has for its object the proſperity of the ſervice, and the health of ſo numerous a body of his Majeſty's ſervants.

This would be ſomewhat ſimilar to the log-book of a ſhip, by which the Commander's conduct is checked under any ſuſpicions of miſbehaviour. It would certainly be a powerful reſtraint on inattention and indolence; and perhaps would be as great a means of reſtraining unqualified perſons from regimental practice, as any yet uſed. They would be now careful to avoid falling under the diſgrace and cenſure of men of profeſſional abilities placed above them.

In carrying on this regiſter, the ſame plan ſhould be purſued as is adopted in other Hoſpitals. Firſt, the ſymptoms deſcribed; then the daily preſcriptions mentioned; and laſtly, an account of the operation of the medicine, with the changes the patient daily undergoes, whether

whether for better or worſe, taking care to ſeparate the diſturbances created by the medicines themſelves *, which are exhibited, from ſuch ſymptoms as truly ariſe from the nature of the diſeaſe (for a careful diſtinction ſhould be made here in giving an accurate hiſtory of what is going forward) and this continued till the caſe either ends fatally or favourably. The experience reaped from ſuch ſtrict obſervations, would add to the ſtock of the Surgeon's knowledge, while a deſire for honeſt reputation would quicken his diligence; and this, perhaps, equally as much as if his ſupport and continuance in the appointment depended ſolely on his ſucceſs.

If ſome plan of this nature be not entered into among regimental ſurgeons themſelves, for their own improvement, or by an order from ſuperiors in the ſervice, they may go

* "It ſeems certain, that medicines which do not pro-
" duce ſome good effect, are, if they are of any activity,
" conſtantly more or leſs pernicious. We muſt therefore
" learn how to eſtimate the effects of remedies, if we wiſh
" to avoid an erroneous application of them, and to diſtin-
" guiſh what ſhare they may have in the *eſſential* or *accidental*
" ſymptoms of a diſeaſe."

Vid. Zimmerm. on Experience in Phyſic.

on in the ſame thoughtleſs routine, tread in the ſame beaten track of bleeding, bliſtering, vomiting, and purging indiſcriminately from habit, more than reaſon, as we have ſometimes had occaſion to obſerve, without the trouble of reflection, whether it is likely to do good or harm, or may be proper or miſchievous.

To perſons of this thoughtleſs turn, no time is ſo tireſome as that ſpent in an examination of the ſick liſt; the patients names are called over, ſome inſignificant advice given; perhaps ordering the patients to procure ſomething, which the Surgeon ought not only to conſider they cannot afford from the ſmall pittance of their ſubſiſtence, but which, if its application be neceſſary, he ought to furniſh them with; then return to his amuſements, whether walking, fowling, fiſhing, hunting, or the like, till the hour of dinner approaches; while this and the jovial glaſs engages, perhaps, the greater part of the evening; morning comes, and the ſame ſcene is again acted; while the patients are but too often left to the ſtrength of their conſtitutions, and the operations of nature for a cure.

What

What I mean they ſhould furniſh, if it be neceſſary to preſcribe them, are, milk, vinegar, bread for poultices, oatmeal, and oil. Theſe articles are often uſed in the regimental practice, and often with the greateſt propriety; yet ſeldom have I obſerved it to be at the Surgeon's expence. If a ſoldier, by ſome accident, meets with a bruiſe or ſprain on any part of his body, he is probably ſent away, with an advice to bathe it with vinegar. This treatment may be extremely proper; but as it may happen that none is given him, and he cannot afford to buy it, the advice is ſeldom put in practice; thus the cure is frequently left to nature.

Bread and milk poultices are as often applied, with advantage, to various complaints. When this is the caſe, the patients in ſome regiments are obliged to furniſh both bread and milk. I have known this become a very heavy and oppreſſive tax on the ſoldier, in caſes where their application was neceſſary for any length of time; it may be two months and upwards. I have known them coſt him no leſs than three half-pence a-day during the time they were uſed; and his remaining ſubſiſtence did not greatly exceed as much more: at the ut-

moſt, the remainder left was only about two-pence half-penny. For when a patient is ſent to the regimental hoſpital, half a crown a week is generally his allowance while he continues in it. This is put into the hands of the hoſpital ſerjeant, and expended in the meſs, or as the Surgeon points out.

The men juſtly complain of this heavy tax; and it is for their ſakes alone I mention it here, in hopes if theſe pages fall into the hands of any who ſtill purſue the ſame cuſtom, they may reform this abuſe, and act differently. They muſt know, that the privates pay for their medicines independent of this, which the Surgeon of the reſpective regiments receives for the purpoſe of furniſhing medicines, and things that may be comprehended under this head: for though they urge, that bread and milk forms no part of the Materia Medica; in a ſoldier's caſe, I would inſiſt that it does, and that not only theſe, but every thing beſides ordered by the way of cure, ſhould be held in this light, and procured from the medicine fund: and here let me take notice of another auxiliary of the ſame nature, flannels for wrapping round

limbs, ſhoulders, arms, &c. affected with rheumatic pains: Theſe, like the others, are often preſcribed, and often with as much propriety. But can a ſoldier afford to buy a yard, or half a yard of flannel, when he needs it for ſuch complaints? A dozen or more of proper ſizes, ſhould be kept in the hoſpital, and lent to them occaſionally; the medicine money can afford all, and ought to afford them.

What I have ſaid on this head will apply to oat-meal: this is uſed likewiſe in caſes of various kinds in the form of poultice mixed with ſome other medicines, and with much ſucceſs, in ſwellings of different kinds; it is uſed as a proper vehicle for applying lead either in form of Sach: Saturn:* diſolved in water; or in that preparation known by the name of Goulard's Vegeto-Mineral Water. When Beer is ordered in poultice, the ſame will apply to it. Some Surgeons apply oat-meal, and ſtale beer to ill conditioned ſores; and they ſay with good effects: when this is the caſe the Surgeon, not the patient, ought to bear the expence; he is paid for all; therefore he ought to afford every thing he finds

* Now Ceruſs. Acetat. Ph. Lond. Nov.

it expedient to preſcribe, that part of regimen comprehending diet and culinary articles excepted.

Where ſuch exactions are made, I mean when every thing proper, ſuch as is now mentioned, are with-held from the ſoldier, when the medicine money can afford them, the military laws ſhould interpoſe. And if Surgeons were compelled to return threefold, or ſomething of this ſort, to the man from whom they had made this exaction, with a public reprimand from the Commanding Officer, it might be the means of reformation; but it is not for me to preſume to point out the mode: I muſt content myſelf with pointing out thoſe abuſes that ſeem to call for reform.

An orderly officer, it is true, viſits the hoſpital in camp daily; in quarters, generally weekly; but I fear it is too much a matter of form with many. The report he returns to the Commanding Officer is as often taken from the Surgeon as from the patients. Indeed, he comes rather to enquire if any thing be wanted, ſuch as fire-wood, ſtraw, &c. than to hear complaints. He ought to viſit the medicine-cheſt, and ſee that it be well furniſhed; but of this in gene-

ral

ral he is a very incompetent judge: Beſides, the Surgeon will ſeldom complain that medicines are wanting, when he knows he muſt himſelf procure them; or, in other reſpects, lodge an information againſt himſelf: But with theſe remarks I muſt leave this ſubject, and haſten to another of no leſs importance.

CHAPTER XII.

OF THE PUNISHMENTS OF THE SOLDIERY, AS FAR AS THE SURGEON IS CONCERNED.

The military laws are ſtrict, and it is abſolutely neceſſary, for the proper behaviour, and ſubordination of the privates they ſhould be ſo. For this purpoſe Court-martials are often conſtituted to take into conſideration the offences of thoſe againſt whom accuſations have been lodged, and puniſhments are frequently the conſequence.

The Britiſh diſcipline may be called ſevere, yet it is in many reſpects more lenient than what the ſoldiery of ſome other nations experience. It is often indeed found neceſſary to puniſh faults not only proceeding from deſign, but thoſe from negligence. If this were not done, negligence might prove of the worſt conſequence to an army. Among the Pruſſian ſoldiery this is carried to a degree far beyond any thing we are acquainted with in the Britiſh ſervice. Dr. Moore informs us, that if even a ſoldier's hat is blown off by the wind, he is ſeverely puniſhed for it, although

although it cannot be ſuppoſed he made an agreement with the winds for that purpoſe. If, in the ſhock of a charge, a dragoon, by a dangerous accident, falls from his horſe, and is thereby liable to be trampled to death by thoſe that come after him, yet if he ſurvives the accident, he is brought to the Halberds; "by this means," ſays one of his Pruſſian Majeſty's Generals, "we teach them the double danger of negligence, and force them to be conſtantly attentive to their duty."

In his Britannic Majeſty's ſervice we find them however occaſionally ſevere. Anthony Gregory of the tenth regiment of foot, in the year 1759, was puniſhed with a hundred laſhes for ſuffering the queue of his hair to drop off, when on duty; his hair was ſhort, which obliged him to wear a queue, which perhaps he had that morning careleſsly tied on.

When court-martials meet, and puniſhments are decreed, a diſagreeable duty devolves on the ſurgeon; for no man by the military laws, can be flogged without his attendance. It becomes his buſineſs diligently to watch over the ſufferers; for ſhould the puniſhment adjudged prove greater than it is his opinion the delinquent can bear without

hazard of his life, he has authority to ſtop the Drummers (the executioners) at any period of it, and order him to be taken down.

This duty is, truly, one of the moſt diſagreeable he is called on to perform: and one, likewiſe, that requires no ſmall ſhare of penetration to diſcharge conſcientiouſly; for impoſition though ſomewhat a juſtifiable one, is no where more apt to be practiſed than here.

Where is the man that will not endeavour to avoid puniſhment, if he thinks ſtratagem can accompliſh it? with this view, the ſurgeon will ſometimes find the ſufferer fall into a ſeeming deliquium animi, before receiving his firſt twenty-five laſhes*; perhaps before he is much hurt, or almoſt any of the cuticle of his ſhoulders lacerated; if the court-martial has adjudged him much puniſhment, he ſhould not be taken down at this period; there are few that cannot, with the utmoſt ſafety, bear double, or treble this number; if it be feigned, which may be diſcovered by the ſtate of his eyes, for this very reaſon he ſhould not be ordered down.

* At the end of every 25 ſtrokes, a freſh Drummer takes the cats; and this rotation is continued till the puniſhment is finiſhed.

It is no uncommon thing, indeed, to ſee feigned fainting fits on theſe occaſions, in order to excite the commiſeration of the ſpectators, particularly the commanding officer, in hopes of pardon; but we acknowledge it may at the ſame time be real; for the firſt few ſtrokes in lacerating the ſkin, give more pain than a great number afterwards, when once it becomes ſo bruiſed and deſtroyed in its texture by the *cats*, as to deaden and blunt its ſenſation. To an anatomiſt this, I apprehend, will appear rational and evident; he knows the ſenſibility of the cutis from the great number of nerves that enter it; nay, even the cuticle which many held as altogether void of ſenſation, and to be compoſed of lamellæ, without nerves, has been ſuppoſed of late by ſome diſtinguiſhed anatomiſts to be almoſt entirely a congeries of them;* but this is a ſubject we ſhall not at preſent enter into; it will require much more inveſtigation than it has hitherto undergone, to elucidate it ſatisfactorily.

The trapezius, and head of the deltoid muſcles, which lie moſt in the way of the

* Vid. an account of the nerves as ſeen by Prof. Monro, in the Med. Comment.

inſtrument

inſtrument of puniſhment, and have but few nerves, comparatively, entering their ſubſtance, do not feel ſo acutely as many other parts of the body. All parts deeply covered with fleſh, if they have not leſs ſenſibility, are at leaſt leſs liable to danger from wounds. This is ſufficiently proved by the common method of puniſhing diſobedient children. The poſteriors, on which they generally receive it, are compoſed of three large muſcles, called glutæi, and which, as it would ſeem, are endowed with leſs ſenſibility from the ſmall number of nerves that enter them, than many other parts of the body, bulk for bulk conſidered; it does not require the ſkill of an anatomiſt to point out this to the offended parent. Common ſenſe and experience both ſhow that little injury will be done the child, from conſiderable puniſhment on this part of his body.

Another reaſon is, the part yields to the ſtroke, and its force is thereby broken; the ſame degree of puniſhment, that is, ſtrokes of equal force, on the tibia, the ancle, or other parts little defended with fleſh, would receive injury much longer felt, and not ſo eaſily removed; the hard bone below acting as a fulcrum, would give the ſtroke its fulleſt power; while

while the veſſels, nerves, and membranes of great ſenſibility lying between, muſt be bruiſed in proportion.

That part of the Deltoid muſcle covering the ſhoulder, is likewiſe compoſed of a large quantity of muſcular fibres. Hence, in the moſt common method of puniſhing ſoldiers, it is not only prudent but rational to teach thoſe whoſe duty it is to execute it, carefully to avoid the ribs, and inflict it on this part. The pain alſo becomes leſs from the numbneſs that takes place by conſtant flagellation, for perhaps half an hour at a time. Should the ſufferer really fall into a deliquium, ſome of his puniſhment paſſing during ſome ſeconds of inſenſibility, is, I think, in his favour, ſince he feels not, or at leaſt obſcurely, what he now receives.

We find this a wiſe proviſion of nature on all occaſions, where pain becomes exceſſive, and irritates the ſyſtem too much: here the powers of life, as it were, are at once ſuſpended, and an interval of inſenſibility follows, whereby, like ſleep, perhaps, to the wearied ſyſtem, it is in ſome meaſure recruited, and rendered capable of withſtanding the threatening danger. In this ſenſe a ſlight

deliquum

deliquium is far from being alarming; it only becomes ſo by its duration: beſides, the continuance of the ſtimulus of flagellation is one of the beſt means of recalling the patient back to ſenſibility. In ſlighter caſes, then, of deliquium the puniſhment need not be interrupted; a few more ſtripes will bring the ſufferer again to himſelf, and prove that all our fears of danger were groundleſs.

Yet cenſure me not for want of humanity when I ſay ſo; it will appear by and by, that my motive is very different. If, on the other hand, the deliquium continues, and he cannot be rouſed in the ſpace of a few ſeconds, or if he turns cold, I always look on it as attended with danger. When I obſerve him ſweat profuſely on the face, as I have ſometimes ſeen, I likewiſe look on his ſufferings as ſevere; and here I think it incumbent on me to attend well to the conſequences.

Soldiers, during their puniſhment, never fail to call frequently for drink; and they ſhould always be indulged in this to the utmoſt of their wiſhes; for it is the ſame now, as we find it in ſome kinds of fevers; the great waſte of liquids from an increaſed action of the heart, and from irritation, together with the violent

violent efforts uſed by vociferation, as long as they are able, and toſſing to get looſe, demand a ſupply, which in ſome meaſure refreſhes them, and mitigates their pain. If refuſed this, which the wants of nature now loudly call for, they muſt bear a double load; the pain of the whip, and the added uneaſineſs of thirſt; indeed, we ſhould look on the puniſhment as a ſevere paroxyſm, or temporary fever; with regard to the pulſe, I never could depend on it in ſuch caſes; this will appear evident when we conſider the ligatures upon the extremities, which, if they do not alter, at leaſt impede free circulation.

If the deliquium continues beyond the time ſpecified above, the puniſhment ſhould be ſuſpended a little, and drink adminiſtered, which ſhould always be in readineſs, with the uſe of ſome other ſtimuli, ſuch as throwing cold water on the face, holding ſtrong volatile ſalts to the noſe, rubbing ſome volatile alkaline ſpirits on the temples, &c. and at the ſame time carefully obſerving the ſtate of the eyes. In a true fainting, theſe are inſenſible to the ſtimulus of light; nor are they affected by threatening danger, ſuch as making an attempt to ruſh the finger into them, and the like;

like; the ſame may be ſaid reſpecting convulſions. The eyes will remain motionleſs, nor will the pupil contract and dilate by ſtimuli that were wont to affect them. For inſtance, if the head be now turned up towards the ſun, the light, though too great for a healthy eye, will not induce any contraction in the pupil. I have, however, ſometimes ſeen convulſions feigned as well as faintings; it is neceſſary therefore to be on our guard. But this will, in general, guide us in forming our opinion of the degree of the delinquent's ſufferings, and aſſiſt us in knowing when the caſe is attended with danger, or when little or none is to be apprehended.

Should the offence be ſuch, that the commanding officer thinks it his duty for the good of the ſervice, * and the diſcipline and cha-

* The following anecdote is told as true, and will ſhow how beneficial to the ſervice, and ſafety, perhaps, of the army, occaſional ſeverity to individuals may prove.

During the late war in America—a grenadier ſtruck Captain Boſcawen;—a court-martial adjudged him a thouſand laſhes; which ſentence was ſo perfectly diſapproved of, that General Howe ordered it to be torn, and the man to be ſent back to England.

In a few days another officer was ſtruck, from an idea the thing would be paſſed over.—But mark the difference—in three hours (ſays the anecdote) *the man was hanged*—there was no more ſtriking.

racter

racter of the regiment, perhaps the ſafety of the inhabitants of the place, as well as for an example to deter others from the commiſſion of ſuch offences, to have the whole inflicted, that the court-martial had adjudged him to undergo, whether at twice or thrice; if the ſurgeon is of opinion he can bear it without riſque of danger to his life, let him, by all means, receive the whole at once. I adviſe this from principles of humanity; for it will ſave the unhappy man a great deal of additional ſuffering.

Let us ſuppoſe him taken down at the end of two hundred and fifty, or three hundred laſhes; and that his ſentence was a thouſand; all which he muſt receive, whether at two, three, or more times, before he is releaſed from confinement. This, abſolutely ſpeaking, is giving him far more pain than the court-martial intended, unleſs they had particularly ſpecified, in their minutes, that he was to receive them in this divided manner. This we ſhall be eaſily able to prove.

Let us ſuppoſe the Surgeon orders him down; that he is conveyed either to the Guard-houſe or Hoſpital; is daily dreſſed till the wounds are healed, and a new cuticle formed, which

which may be in a month or five weeks. He is now become able to wear his clothes; yet, perhaps, ſcarcely able to ſuffer the weight and friction of his croſs-belts, or the preſſure of his hammerſack; the parts are as yet red and tender, notwithſtanding he is ordered a ſecond time to the halberds; and at the end of two or three hundred more, is a ſecond time taken down, cured as before; a third time brought there, and ſo on, till the whole puniſhment be inflicted.

Thoſe who conſider the nature of the human body, will readily allow, that the ſecond part of his puniſhment muſt coſt him at leaſt double the pain of the firſt. To illuſtrate this to ſuch as are leſs acquainted with medical ſubjects, we deſire them only to reflect on the pain they felt from a cut finger, or leg, after the wound is newly cicatriſed, and the dreſſings are laid aſide. They will agree with me, that they felt a tenfold ſenſibility in the part to what it uſed to poſſeſs. The very air affects it; and a ſmall injury at this time, before the cuticle thickens, and the part ſtrengthens, ſuch as a trifling blow, which on other occaſions would not give uneaſineſs, gives now exquiſite pain. Even more blood veſſels, as well

well as nerves, ſeem now to be formed in the part than it was endowed with before, which age will obliterate as the cuticle condenſes. We obſerve this take place in the infant ſtate. Youth poſſeſſes many blood veſſels, as well as nerves, which in riper years collapſe and diſappear. This is evident from the florid countenance of youth, compared with the wrinkles and pallid appearance of age.

Some will probably explain this from the ballance falling on the venous ſyſtem. Anatomical injections, however, demonſtrate innumerable veſſels in the infant, that cannot be ſhewn at a late period of life. As nerves are always found to accompany arteries, the better to communicate that reciprocal action which they exert on each other, and by which their functions are more completely performed, it is reaſonable to ſuppoſe many of theſe are obliterated alſo, as being no longer neceſſary. This at leaſt we are certain of, that age is very far from being ſo mobile as youth. The blunted paſſions, the ſtiffened motions of the body, and hardneſs of each fibre; nay, a thouſand things unite to confirm it.

Can a young animal of any ſpecies bear the ſame fatigue, pain, or cold, as one that is arrived to maturity? We ſee children ſuffer conſiderably in a degree of cold from which a grown perſon would feel no inconvenience. In like manner we obſerve them ſuffer greatly from a chaſtiſement, inflicted for ſome fault, which would ſcarcely be felt, much leſs complained of by an adult. It is exactly the ſame with the ſoldier carried a ſecond time to the halberds before his late wounds have been properly united, or the new cuticle properly condenſed by age. This part is juſt in the ſtate of a child's body; *i. e.* it is endowed with far greater ſenſiblity from its recent growth, than it will be ſome months afterwards: it is no wonder then if he now ſuffers in proportion.

We know, that if a part of the body in health be covered ſome time, it becomes more delicate and ſenſible: for inſtance, the hands. Suppoſe on one hand a glove be daily and nightly worn only a few months, and the other allowed to remain bare; take off the glove, and expoſe the hand to the air, it will feel the cold much more ſeverely than the other that remained uncovered. It is the

ſame,

ſame, then, in the caſe above. The parts puniſhed have been long defended by double coverings, and ſoftening and lubricating dreſſings to favour the re-union; all this muſt ſurely add to its ſenſibility; but it ſeems obvious, and needs no farther illuſtration.

Yet as this train of reaſoning may be rejected by ſome, however clear it may appear, we ſhall prove the fact, that more veſſels do exiſt in parts newly cicatrized, than in others where no injury has been lately received. Dr. Monro has made experiments with this very view, one of which was on a pig, the part was cut out after it healed, and injected; an account of which the reader will find in his obſervations on the nervous ſyſtem. After relating the experiment, the learned author concludes, "I will now add, that in calli, "cicatrices, or acretions, there are number-"leſs new formed veſſels, filled in the living "animal with red blood, and which can "readily be injected *."

Now it muſt appear from all this, that if the delinquent be taken down, cured of his wounds, and immediately after tied up again, he ſuffers a puniſhment equal to the whole

* Vid. Obſ. on Nerv. Syſtem, p. 86.

each time, ſhould he be tied up ever ſo often. Surely this is what the court-martial never intended; and is a cruelty the Surgeon ought to point out, and endeavour to guard againſt, by explaining the reaſon, if the officers be unacquainted with it.

The danger of recovery after a thouſand laſhes is, I own, vaſtly greater than that from two or three hundred; but I am ſtill of opinion, there is little difference in the ſum of the abſolute pain, if given at once.

Hall, was ſentenced to receive five hundred laſhes for houſe-breaking. He got four hundred of them before he was taken down; and in the ſpace of ſix weeks was judged able to ſuſtain the remainder of his puniſhment, as his back was entirely ſkinned over. The firſt twenty-five of this ſecond part tore the young fleſh more than the former four hundred, the blood pouring at the ſame time in ſtreams, as if a number of veins had been opened; by the time he got ſeventy-five, his back was ten times more cut by the *cats* than with his former four hundred, ſo that it was thought prudent to remit the remaining twenty-five, and take him down.

For

For ſome days afterwards he complained grievouſly, and declared that his former pain was trifling to what he ſuffered now. Other examples might be added; but to multiply ſuch is diſagreeable. This caſe, however, was ſo evident, that all the officers preſent at this part of the puniſhment remarked it, while the Lieutenant-Colonel, a man of great humanity, whiſpered in my ear, to order him down at the above number. In this inſtance, the copious flow of blood iſſuing forth at every laſh, evidently proved an encreaſe of blood veſſels in the new cicatrized parts.

When the Surgeon finds it incumbent on himſelf to take a man down, becauſe it is his opinion he is in danger, he ought as carefully to repreſent the ſeverity of a ſecond or third puniſhment, and endeavour, if poſſible, to procure the man's releaſe. This he may do privately, without its being known to the delinquent from what ſource his pardon comes; for it is better that mercy ſhould ſeem to proceed always from the commanding officer, whoſe duty it is to keep the privates in due ſubjection, and from villainous actions, than from any other. This clemency may have a proper effect on ſome, and from a ſenſe of gratitude make them

behave well, while it will, at the ſame time, gain him a good name in the regiment. Yet, we confeſs, the evil-diſpoſed may take advantage of ſuch mild treatment, and commit bad actions through hopes of experiencing ſimilar mercy *.

From the reaſon adduced in ſupport of my opinion, that a ſoldier ſhould not be taken down till all his puniſhment be given, except when the caſe is urgent, or when he has reaſon to hope the delinquent will be forgiven what remains, which will be known from his general character, and the nature of the crime; none, I am perſuaded, will accuſe me of inhumanity. My advice is ſurely calculated to obviate, as much as poſſible, both inhumanity and cruelty. For though the populace, who are often preſent at puniſhments, and as often, on theſe occaſions, troubleſome, may not ſee this, nor comprehend the reaſon, yet he that reflects muſt acknowledge its truth, and its ſalutary tendency.

Another thing which the Surgeon ſhould keep in view, in performing this diſagreeable duty, is, the form of the ſufferer's body; the

* An inſtance of which we have already related in the anecdote relative to General Howe and the grenadier.

make

make of his fibre, and ſtrength of his conſtitution. This is a very material thing, and without ſuch attention, he may be guilty of great errors. I need not tell him how much this varies in individuals; nay, ſo much, that perhaps, no two on earth are in this reſpect exactly ſimilar.

Some are of a more robuſt, ſome of a more delicate make; ſome from this endowed with great ſenſibility, others again far leſs ſenſible; he muſt never let this eſcape his penetration. Experience in making obſervations, and comparing the difference of the form of the body in different men, will enable him to judge in this neceſſary part. Men of red or fair hair, with ruddy complexions, and of a ſmall, or tall and genteel ſhape, or that are plethoric; men of a ſcrophulous habit, or ſuch as have a tendency to diſeaſes in the cheſt, or are conſtitutionally weak; will be more affected by a given number of laſhes, than a man of a hard denſe fibre, with three times the number.

The way of life, *i. e.* the trade they have been bred to, unleſs they have long left it off, may add to this. Taylors, for inſtance, who are much confined within doors at their

employment in the army, are more delicate and tender than thoſe who are always in the open air.

Edwards, in the end of 1781, was ſentenced to receive fifty laſhes; he had got drunk, and otherwiſe miſbehaved. In the army this number is accounted next to nothing. So much, however, did this ſmall puniſhment affect him, that notwithſtanding every degree of attention to his cure, it was upwards of three months before he could bear his croſs-belts, or even move his arms to work. Perhaps fifty more would have rendered his life in moſt imminent danger; he was of a thin, tall, genteel ſhape; his hair black, but ſoft, woolly, and thin on his head, with a ſkin remarkably white and ſmooth; he was a taylor.

Thoſe, on the contrary, of a dark, or brown complexion, of black hard hair, or hair of a reddiſh brown, and curled, are generally of a robuſt conſtitution. I mean here, perſons of adult age; though we may obſerve the ſame difference almoſt in infancy by comparing ſimilar ages, but not ſo fully marked. Men who have much hair on their bodies, are ſtronger than thoſe who have little

or

or none. In a word, thoſe of, or tending to the melancholic temperament, are always ſtronger and abler to bear puniſhment than the ſanguine, or choleric; as alſo men of large bones, and their muſcular parts equally furniſhed. I ſhould be afraid to puniſh a perſon of a leucophlegmatic habit, ſo much as the melancholic. Though the ſhades of temperament gradually ſlide into each other, yet enough may be obſerved to aſſiſt us in forming our opinion with regard to the ſum of puniſhment men in the army can ſuſtain without danger.

Burch, a grenadier, received three hundred laſhes for deſertion, in Auguſt, 1782. He bore this puniſhment without the ſmalleſt groan, or ever moving from the moment he was tied up till he was taken down*; nor was

* Some, however, do not complain, through what may, perhaps, be called ſomething like fortitude.—In a public paper I lately found the following anecdote; whether it will apply here, I cannot tell. "It is not long ſince," ſays this account, "in France, a ſoldier received two hundred laſhes without *flinching*; the officer, therefore, ordered the fuſilier to ſtop, and ſtabbed the ſoldier with his ſword—the ſoldier dropped, and in the moment of dying, ſaid—"thank God."

Lately, in England, not far from the Metropolis, ſays the ſame account, a ſoldier received four hundred laſhes, he too, ſcorned

was he ſo much cut as I have ſeen others with much leſs; for inſtance, in the laſt example. He was about forty years of age, five feet ten inches and an half high, with a proportionable thickneſs; not corpulent, but had large bones, and of an athletic make; his ſkin of a hard firm texture; and on the whole, what may be properly called, a robuſt man. He had alſo been in the army eleven years, part of which he ſerved in the Weſt Indies.

Serjeant, a grenadier, in the latter end of the following October, received two hundred laſhes for theft, yet he was not ſo much as cut by this puniſhment. He was tall, appeared even lean, fibres hard, and ſkin brown. His back was only blackened, and the veſſels beneath the ſkin a little lacerated, as appeared from this colour, which proceeded from extravaſated blood; but the thickneſs and denſity of the cuticle prevented it from being cut; yet the laſhes were given with as much force as the drummers, who were ſtrong men,

ſcorned to *flinch* for ſome time, till by a moſt dreadful repetition of ſtripes, he groaned, and died.—What a pity there ſhould be (if there really is) a neceſſity for ſuch horrid puniſhment!

could

could apply. The Adjutant of the regiment, on my mentioning how little effect the puniſhment had on the man, declared to me, that though he had ſerved moſt of his life in the army, he never ſaw laſhes, as he phraſed it, *better laid on.* This man was of a ſtrong fibre, dark black hair, hard and criſped; ſix feet an inch and a half high, and twenty-ſeven years of age, had been ſeven years in the army. I mention the length of ſervice, becauſe when inured to the life of a ſoldier, they bear its viciſſitudes much better; and puniſhments I term one of them.

Sheppard, received five hundred laſhes for houſe-breaking, and was entirely well in three weeks. Hall, who was his companion in this action, and ſuffered at the ſame time, was ſix weeks before he recovered from his four hundred, and his ſeventy-five given afterwards, made him an object of great diſtreſs. The difference of theſe two in conſtitution was remarkable, and eaſily diſcerned, even by thoſe of no medical judgment. Had Sheppard received one thouſand, his puniſhment would not have been equal to the others at four hundred; he was fit for duty, we find, after his five hundred, in half the time.

Henley,

Henley, for defertion, received only two hundred, but this was more to him than fifteen hundred would have been to this man. The head of the deltoid, the longiſſimus dorſi, the trapezius, and other muſcles in the way of the cats were greatly injured. When the wounds were cleaned, and the ſkin and bruiſed parts had ſuppurated off, the ſpine below the trapezius, and part of the ſcapula were laid bare. I never had ſeen ſo much of the muſcular parts deſtroyed, in any caſe from puniſhment, before. His ſtature was ſmall, about five feet two inches; his ſhape proportionably delicate and ſlender; his bones very ſmall; his body lean; his hair a fair brown, thinly covering his head, ſoft, lank, and without the ſmalleſt curl. He was twenty-three years of age, and had only been three months in the ſervice.

A few days after he received his puniſhment, he was ſeized with an inflammation in his throat, which ſoon went off, but was ſucceeded by loſs of motion in the lower extremities, which was upwards of a fortnight before it could be removed. A large abſceſs formed below his left ſhoulder, and conſiderably lower than where the cats had cut

him;

him; viz. about the ſixth rib, and towards their inſertion into the ſpine.

On the fourteenth day, after his puniſhment, I opened it, from which iſſued more than two pounds of pus, mixed with blood; before it was opened, its bulk was as large as the crown of a hat. I attributed the want of motion in his limbs to the inflammation of the abſceſs, and I may likewiſe place his recovery to the removal of the pus. Had it made its way through the intercoſtals, and thence into the cavity of the thorax; or had the inflammation reached the lungs, the caſe might have ended in a hectic fever, and death. It was upwards of ſeven months before he was ſo far recovered as to be able to do his duty.

This caſe alone, is ſufficient to point out the neceſſity of paying due attention to the ſtrength and conſtitution in ſoldiers puniſhments. To contend that all can bear five hundred, or a thouſand ſtripes, becauſe ſome are found to ſuſtain them without much danger, would be as abſurd, as to contend, that becauſe one man has eſcaped death in the midſt of an engagement, all will do the ſame.

During the time of puniſhment, we ſometimes obſerve the back tumify conſiderably; in the more delicate, it puffs up under the cats, in a very ſhort time, and to a great degree. I have frequently noted this, and it is one of my characteriſtic marks of a tender habit; it is a ſure ſign of a laxity of fibre. This ſhould not be overlooked in the quantum of the puniſhment, even ſhould ſome of thoſe marks, already mentioned, be abſent, or at leaſt doubtful. The robuſt ſeldom ſwell, with a moderate puniſhment. In ſuch delicate habits, inflammations, and large ſuppurations enſue.

Jones, a grenadier, was puniſhed in December 1782: The tumefaction took place to a high degree, and it was with no ſmall difficulty it could be diſcuſſed. Dale, who was puniſhed in the beginning of the following month, was, in this reſpect, ſtill worſe. For upwards of a fortnight he loſt the uſe of his limbs.

In diſcuſſing theſe inflammations, when it is practicable, I have ſucceeded beſt by the liniment: ſaponis. The inflammation generally takes place below the lacerations; ſometimes as low down as the laſt vertebræ

of

of the back ; and in one caſe the gluteus was ſlightly affected. It is produced by the great quantity of extravaſated blood, which falls from the wounds above, and from the great degree of excitement in the neighbouring veſſels, communicated by the injury which the contiguous parts ſuſtain.

When this tumefaction, during puniſhment, is obſerved to take place to any great degree, the ſoldier ſhould be taken down ; it portends danger in proceeding farther. Such was the caſe with this unfortunate man. I had never obſerved the tumefaction ſo great with the ſame number of ſtripes. He was of low ſtature ; ſkin white and ſoft ; indeed he had very nearly fallen a martyr to the puniſhment. An abſceſs, ſuch as already deſcribed, formed in the ſmall of the back, by the falling down of the extravaſated blood, between the muſcles, and dorſal vertebræ, after it was opened, and almoſt cured, a ſecond, ſtill lower down took place, viz. about the laſt of the dorſal vertebræ ; theſe produced a ſevere fever of ſeveral weeks duration, and the copious diſcharge, which continued long, reduced him to a mere ſkeleton.

We

We muſt not omit giving ſome hints here relative to tying the delinquent to the halberds. This is generally performed by the Drum-major, and the Puniſhers, over whom he preſides. But I am of opinion the Surgeon ſhould inſpect the whole. He ſhould ſee that the arms, which are generally ſtretched above the head, and tied about the wriſts to the halberds, be neither too tightly bound, nor over ſtretched. The ſame ſhould be obſerved of the cords that faſten his thighs. I have ſeen inconveniences ariſe from want of attention to this article, where the hands above the ligatures, from the ſtoppage of circulation, have turned black, and remained numb, and cold, for upwards of a week afterwards; this accident will follow, when a man is injudiciouſly bound, ſo that he hangs, as it were, by the hands. The thighs ought to be conſiderably tighter bound than the hands, becauſe it more effectually prevents ſwinging, which is always prejudicial, and renders the puniſhment both more ſevere, and attended with greater hazard.

But if the cords be too looſe, it is as bad; for room is now allowed for ſwinging, and leaping about, to avoid, if poſſible, the ſtrokes, whereby

whereby it is out of the power of the Puniſher to give them on the parts where he is directed, and is often the cauſe to the Drummer himſelf of ſome ſtripes for not doing his duty with more exactneſs. By this means, the *Cats* falling on improper parts of the body, may prove dangerous ; if too low, affecting the ribs, it is bad ; it is too near the vital parts ; if too high, on the neck, or even twiſting round on the breaſt, it is not leſs inconvenient ; nay, what is worſe, by their ſwinging, I have ſeen the cheeks cut, and the eyes in danger. The poſſibility of loſing an eye in this manner is very clear ; for it would be a thouſand to one if the ſight could be preſerved after an accidental ſtroke from the *Cats*. They ſhould then be admoniſhed before the puniſhment commences, to ſtand as firm as poſſible ; for, as they cannot avoid the ſentence of the court-martial, the more they toſs, the greater is their puniſhment. To ſtand *fair*, as they term it, ſaves pain, not only to themſelves, but ſeveral ſtripes to the poor fellows, who are obliged to execute the ſentence*.

Anderſon, was puniſhed in April 1783. He behaved ſtubbornly, and would not per-

* The Adjutant charges the Drum-major, and often enforces it by a ſtroke of his ratan, to make the Drummers *do their*

mit himſelf to be ſo well bound as it was neceſſary; the cords that bound him were too looſe; he had too much room to ſwing; and all the accidents I have mentioned, except the injury to his eyes, took place; the *Cats* plaited round his neck, and even cut his cheeks. The Puniſhers were obliged to ſtop, and bind him firmer. We ſee then, a medium is to be obſerved in this affair.

The Surgeon's attention ſhould likewiſe be turned to the parts on which the cats fall. The mode of puniſhing, in general, is, for each Drummer, appointed on this duty, to give twenty-five ſtrokes in turn, till the ſufferer be ordered down. Some of them ſtrike with more judgment than others; the ſurgeon ſhould attend to this, and caution them to let their ſtrokes fall on the ſhoulders, yet not on the neck. To puniſh ſo low down as the ribs ſhould be religiouſly avoided; it is not a little dangerous; the heart, lungs, and other noble viſcera are too contiguous, and will be affected in proportion.

Let as little new ſkin as poſſible be wounded, for the reaſon already given, that the cutis, cuticle, &c. are endowed with great ſenſibility. I trembled

their duty; he in return, ſtrikes the Puniſher, who, if he is able, is compelled to add force to his next ſtroke on the delinquent.

trembled always for the unhappy ſufferer, when a left-handed drummer, puniſhed in turn, with thoſe uſing the right. His ſtrokes cut exactly acroſs thoſe given before him, and by this means, both more muſcular ſubſtance, and new ſkin was torn. The ſloughs, that ſuppurate off in the courſe of the cure, are always deeper, and the patient, of courſe, longer of recovery. I could wiſh to exclude ſuch men, for the ſake of the ſufferer; at leaſt, I would eſtimate twenty-five ſuch ſtrokes at fifty of thoſe given by right-handed puniſhers; for I am confident they do him more injury than fifty, where the cuts lie all one way.

Since, from the nature of the Surgeon's duty, and the military laws, he has ſo great a ſhare in puniſhments, I muſt not omit another caution he is to obſerve; that is, the ſize and weight of the cats. The cords ſhould be ſmall, by which means they will cut cleaner, and bruiſe leſs; nor ſhould the ſame cat be long uſed at one puniſhment; for by the additional weight of blood, with which they are loaded, the ſeverity of each ſtroke is greatly augmented; they fall now on the ſufferer's back, like ſo many *flails*, to uſe the poor men's own expreſſion. They have often afterwards, on my dreſſing them, declared, that one

ſtroke from a cat loaded with blood, gave them more pain than four from a dry one; it is evident it muſt be ſo.

It is often, from thence, that large and dangerous inflammations take place, and thoſe dreadful ſuppurations already mentioned. In two caſes, where theſe ſuppurations were large, from the long continuance of the diſcharge, I not only dreaded a hectic, but a corroſion of the ends of the ribs, connected with the ſpine, even from the top of the trapezius, to the extremity of the latiſſimus dorſi.

Sinuſes always form here, and extend on every ſide, running far beyond where the cutis is wounded; the cellular ſubſtance is always corroded, and melted down, and the cutis with its cuticle left detached; ſo that by lifting it up with the forceps, to ſyringe the parts below, we can ſee down from the trapezius, between the cutis and the muſcular parts, to the laſt vertebræ of the loins, where it is always neceſſary to make a counter opening, to allow the diſcharge a free exit.

In many regiments it is likewiſe cuſtomary never to waſh the cats after puniſhment, but to allow the blood to dry on them, to render them more ſevere; but I cannot avoid expreſſing my diſapprobation of this method.

It is adding greatly to a puniſhment, which is already, from its very nature, accompanied with too much ſeverity. I am firmly of opinion, that the cats ſhould not only be waſhed clean, after every puniſhment, but that the ſame cat ſhould not be uſed in more than fifty laſhes in the ſame puniſhment, to avoid the bruiſes that conſtantly enſue from their augmented weight. The Drum-Major ſhould, therefore, be provided with at leaſt ten or twelve cats, which, at fifty laſhes a piece, will be ſufficient, in general, to finiſh the ſevereſt puniſhment.

Theſe regulations are entirely in the power of the commanding officer; the military law leaves him altogether at liberty on this head. Perhaps it would have been better, had it been more definite than it is, on a matter that appears to me of ſome moment to the ſervice. Men having a command over others in this reſpect, would not then dare to abuſe it, as ſome inſtances prove to us they have done *. Men would not then, at the caprice of a ſuperior, or their *Governor*, be whipped to death as ſome recent accounts tell us, has lately been the caſe abroad, in one of the Engliſh

 ſtations;

* Alluding here to the conduct of a late Governor of one of the Britiſh Settlements.

ſtations; but the cruel perpetrator of ſuch a deed, though he may fly from the juſtice of his country, cannot fly from his own conſcience *; a wound muſt rankle there, and poiſon all his future happineſs.

Would it not be conſonant to policy to adopt that method of puniſhing which is attended with leaſt danger? Pain muſt follow puniſhment; it is that for which it is inflicted; but danger ought not. The cat uſed conſiſts generally of ſix cords; a hundred laſhes given with this inſtrument, if we refer to the injury done, will be equal to ſix hundred given with a ſingle cord. The ſkin and muſcular fibres will be as much torn, as if 600 had been inflicted. The ſum of pain, however, is not in the ſame proportion. The ſum of pain will be greatly under. Therefore the danger from 100, given by a cat with ſix tails, is great; but the ſum of real puniſhment, or the pain, is little augmented by the addition of cats. Let then a ſingle cord be uſed inſtead of this multiplied number. Let us ſee how it ſtands when compared with the puniſhment given by the Weſt-Indian planter to

* One account ſays, the perſon alluded to above, ordered five ſoldiers to be tried, and condemned to receive no leſs than fifteen hundred laſhes each; another account ſays, eight hundred

to his ſlave. The planter, while he puniſhes ſeverely, has an eye to his intereſt, and for the moſt part does not inflict a degree of puniſhment that would deprive him of his work, or put his life in danger. Their puniſhments are given with a heavy cart-whip, and not on the back, but lower down. I ſpeak of the moſt judicious and moſt merciful of the planters; for unſpeakable cruelties are alſo occaſionally practiſed by many of them, as we are well informed. They are able next day to attend their uſual work. Not ſo the ſoldier: weeks, and often months paſs away, and he is not recovered. †

But allowing, that few, or none die, which I believe to be the fact; immediately from puniſhments moderately inflicted, I know, from experience in the ſervice, that conſtitutions have been conſiderably impaired by

hundred with a rope's end; this, if it be true, muſt ſtill be worſe; while it muſt ſhock humanity to reflect on the conſequences. Three, it is ſaid, died of their wounds; and the other two muſt ſpin out the reſt of their exiſtence in miſery, from broken conſtitutions and bad health, which muſt enſue from this barbarous treatment. Vid. the public papers, about the end of 1783, for this account.

† I acknowledge my obligation to the editors of the Britiſh Critick, in their review of the firſt edition of this work, for the hint of the above compariſon between the puniſhment of the Weſt Indian ſlave and the ſoldier.

them. We ſometimes find the body melt away into a ſpectre of ſkin and bone, from the large ſuppurations that have followed; nor were they ever able afterwards, as long as I knew them, to bear the ſame hardſhips as before; and they muſt, from thence, alſo be more incident, not only to contagious diſeaſes, if they be in the way of them, but to other complaints, to which fatigue, or hardſhips of duty may expoſe them.

The true deſign of puniſhment, is to prevent the commiſſion of crimes, not as a ſacrifice for that already committed; if this can be obtained, the utmoſt end of the law is accompliſhed. And may not this be as well done by moderate, as immoderate ſeverity? That ſuch puniſhments are meant as an example, to deter others from the commiſſion of crimes, is proved from their being always executed in the preſence of all the private ſoldiers in the place. They are conſtantly obliged to form a circle round, and be ſpectators: for this purpoſe, the ceremony of ſtripping, and tying up the offender to the halberds, ſhould be rendered as ſolemn and awful as poſſible, to impreſs their minds the more deeply; but the puniſhment itſelf ſhould be as moderate as the

nature

nature of the crime, and the military law will permit.

The next thing the ſurgeon is to attend to in puniſhments, is the ſeaſon of the year, and ſtate of the weather. In winter, and in cold weather, a man will bear a conſiderable larger puniſhment with leſs danger than in ſummer, eſpecially if the weather be warm, and has continued ſo for ſome time before; or if autumn be approaching. In cold wintry weather, the fibres are tenſe, and rigid, comparatively to what they are in hot weather, and much leſs danger is to be apprehended from fever, which when it has appeared, I have always found to be of the Typhus, than the inflammable Type: I never durſt bleed in it; for it ſeldom takes place till ſuppuration comes on, and the ſmell from the back is conſiderably offenſive; and to theſe putrid ſteams, I always attribute a great ſhare of it.

If the priſoner has been long confined before the court-martial ſat on him, or afterwards, before its ſentence is executed, and the weather all this time continues warm, it is reaſonable to ſuppoſe that the body will be proportionably relaxed and weakened. Even the dread and apprehenſion of the evil hour, muſt have its ſhare in adding to this ſtate of

body.

body. It is needleſs here to enter into a diſquiſition concerning the ſedative effects of fear, and the other depreſſing paſſions; for if they be not the ultimate cauſe, they are allowed by all to be powerful occaſional cauſes of nervous fevers.

Every ſoldier, under confinement, has ſomething to fear; all are not callous. I have ſeen ſome ſuffer more from this than from the puniſhment; we may add, that their ſituation is leſs comfortable in confinement; they are neither allowed a bed to ſleep on, nor is their food ſo full; if they are placed in the Guard-houſe, they muſt lie on the guard bed, which is always a broad bench, without any thing ſpread over it; if in the *Black Hole*, they have only ſtraw to lie on, and are otherwiſe worſe off, as it is generally a ſmall, damp, dark, confined place. Suppoſe a man kept in this condition for ſome weeks; never having his clothes off, nor ever out of it, except to the neceſſary, &c. under the care of a centinel; muſt he not be debilitated? The Surgeon ſhould keep all theſe things ſtrictly in view.

Autumn is the moſt ſickly ſeaſon; flagellation will now be more liable to produce fevers. At this time, then, let him caution the commanding

manding officer, to recommend to the court-martial, that punifhments may be moderate. The fmell emitted, in a few days after, from fo large an excoriated furface, is of itfelf, independent of any auxiliary caufe, fufficient to produce fever; if contagious fevers be in the place, this muft greatly prediſpoſe the body for their reception. I have often found the fmell highly offenfive, both to the patient himfelf, and all thofe in the room with him.

Burch had fo great a difcharge from his back, accompanied with a fmell fo great, that though a more than ordinary robuft man, it made him extremely faint and uneafy; he complained more of this than of the pain he fuffered, yet he was carefully dreffed, and wafhed twice a day, and for fome time fhirted once every day; the weather was warm; it was now the end of Auguft.

Dale, who in January following, was punifhed for ftealing, fmelled fo offenfively, though the greateft attention was paid to dreffing, and wafhing his back, as well as to changing his linen, and fo great effect did it produce on his health, that he fell into a fever, and narrowly efcaped with life. Though this was at the coldeft feafon of the year, yet fo difagreeable was the room where he lay, to

the

the other patients, that they entreated me, to have him taken out of it, with which I complied, leſt their health ſhould ſuffer, and a contagious fever be induced among them. A ſeparate room was, therefore, fitted up for him, to which he was removed; the hoſpital, happening at this time, fortunately, to be more than commonly large and commodious. From the putrid ſmell of his ſores, it was no eaſy taſk to dreſs him; and ſuch was the precarious ſtate of his health, that I durſt truſt it to no one but myſelf.

Before I finiſh this ſubject, I muſt beg the Surgeon's indulgence, while I give him another caution, which is, never to ſuffer a priſoner to receive his puniſhment under cover; let it be done invariably in the open air; this, as far as I know, is moſtly practiſed. I remember once a propoſal to puniſh a man in the Guard-room of a Fort, the better to avoid the populace, but I ſtrongly objected. I need hardly add my reaſons; it was to allow the man the benefit of the free air, a matter now of ſome moment. Sometimes, to avoid the mob, it may be thought prudent to propoſe puniſhing in the Guard-room, or under ſome other cover; but if poſſible it ſhould be avoided.

Puniſh-

Puniſhments ſhould not be inflicted on, or immediately after a march, even ſhould it be ſo ſhort as ten miles; for the ſanguiferous ſyſtem, by fatigue, muſt be accelerated, the body debilitated, and rendered more ſuſceptible of injury. For the ſame reaſon, it ſhould not ſucceed the exerciſes of a field morning, nor yet the morning after a drunken debauch.

From what has been ſaid, it will occur, that in warm weather, the morning is the moſt proper time for puniſhments, as well on account of the coolneſs, as from the refreſhment of the night, if the priſoner has had any place to ſleep in. Should the puiſhment happen in a Cantonment, at a conſiderable diſtance from Head-quarters, and it be found neceſſary to ſend the priſoner there to the regimental hoſpital, do not oblige him to walk; it is cruel. Let a cart be provided, even if the hire ſhould be ſtopped from his pay; a mile, or a mile and half I do not conſider as of conſequence, nor is a cart, in this caſe, neceſſary; but if much more, he ſhould be indulged with one; for though his ſores may not yet render the body ſtiff, or feel ſo painful, as they will ſome hours after, yet

his

his ſpirits and ſtrength muſt be ſo exhauſted, that his limbs may be very unequal to the taſk of ſupporting his body in walking.

Anderſon, was puniſhed at Loweſtoffe, nine miles from head quarters; it was found neceſſary to ſend him to the regimental hoſpital, at Yarmouth. A guard was ordered to eſcort him there; he declared he could not walk, which I very readily believed, and prevailed on the commanding officer, of the party, ſtationed there, to indulge him with a cart: he had walked from head quarters, that morning, under a guard, and to oblige him, after a ſevere puniſhment, to return back on foot, might have proved dangerous.

Surgeons are apt to uſe too much delicacy, and do not always contend for their opinion and authority, as behoves them, reſpecting puniſhments. An ill placed delicacy, in this point, may prove ſerious, ſometimes, to the ſufferer. The Surgeon's buſineſs, at puniſhments, is to prevent any danger to the life of the patient, and to take off any blame that otherwiſe might fall on the officers; he ſhould, therefore, exert his authority, and take the ſufferer down, though contrary to the opinion of the whole corps, when he ſees proper

reaſon for it. It is he alone, not they, who is ſuppoſed to be acquainted with the ſtrength of the body, and the human conſtitution. An apology is offered often, by Surgeons, that officers may be offended, if they officiouſly ſtep in to prevent the farther execution of the ſentence, when it may appear to them, that ſcarcely half enough has been inflicted; but he may depend on it, this will not ſcreen him, if he proves too paſſive and obedient, when duty, and well timed tenderneſs, urge him to act differently.

It is true, ſome officers may be raſh enough to cenſure him, if he orders down a delinquent, before receiving, what they may think his deſert; but here, it is not the magnitude of the crime, but the ſufferer's ability, and the danger the Surgeon ſees before him, by which he is to act; nevertheleſs, I am apt to believe, there are very few officers of a diſpoſition ſo cruel as to enforce more than the Surgeon thinks enough.

I have ſeen repeated inſtances of the humanity of officers; they have often whiſpered in my ear, on theſe occaſions, and with expreſſive countenances, aſked, whether I did not think enough had been inflicted? and this

this too, when both the offender's crime, and his ſtrength, appeared to me to deſerve more; inſtances of which, I have often experienced in a Lieutenant-Colonel, under whom I ſerved ſome years, who for humanity has, perhaps, ſcarcely his equal in the ſervice.

They were always great offenders whom he ever allowed to ſuffer, even till I ordered the puniſhment to be ſuſpended. Robbery, houſe-breaking, ſhop-lifting, theft, are crimes that always call for vigorous puniſhment, as they affect not only the property, but the ſafety of the ſubject; not to mention the honour of the regiment, which every officer ſhould maintain as far as lies in his power.

Should the Surgeon find many of the officers diſpoſed to blame him for too great lenity, alledging that the ſubjection of the regiment will be injured, and the commiſſion of crimes thereby encouraged, he ſhould take pains to point out his reaſons for his conduct; and endeavour to convince them of worſe conſequences to the character and good name of the regiment, ſhould any die from over-puniſhment. They ſhould be informed, that it is the opinion of many eminent men, that the military laws are already too ſtrict; nor

ſhould

ſhould it be without much reluctance that they are put in force in their utmoſt rigour.

Beſides, as this is a duty for which he, in a particular manner, muſt anſwer, he is therefore, with reaſon, more concerned for the conſequences. It becomes more incumbent on him to guard againſt danger, both for his own, and their reputation. Should a man die, in conſequence of over-puniſhment, I am certain he might be tried by the laws of his country for his life; and ſuch an accident would fix, and juſtly, an eternal blot on his character, both as a man void of profeſſional knowledge, and of the feelings of humanity.

Such an accident, ſome years ago, did unfortunately happen to a regiment quartered in the weſt of England. There a man died in conſequence of puniſhment. The circumſtances attending it are not neceſſary to be related here; thus far may be ſaid, that both ſurgeon and officers miſtook the man's ſtrength, for it muſt not be ſuppoſed they meant to whip him to death. The Surgeon too eaſily yielded up his prerogative, and forgot he was reſponſible, till his country called upon him to anſwer for his conduct. He

was tried at the ſucceeding aſſizes for the county, and though acquitted, from ſeveral circumſtances that appeared in his favour, yet he never ſpoke on the ſubject without conſiderable emotion, as I know from my acquaintance with him afterwards: it coſt him not only much anxiety of mind, but great expence, and the hazard of his life. An enraged multitude ſought him in every corner; but a precipitate flight to another kingdom prevented them from diſcovering him; had he been found while their ferment continued, they would have taken the law into their own hands, and not waited for the verdict of a jury; happily for him the aſſizes were at ſeveral months diſtance, and the minds of the people had time to cool before he appeared on his trial, which his friends thought it highly expedient for him to do.

When a court-martial ſits, it is not the ſtrength of the offender's conſtitution, but the accuſation brought againſt him, that the members compoſing it conſider. Nor do they wiſh to whip any man to death; if he can bear their ſentence, it is well; if not, they are no longer judges, nor are they reſponſible; this is placed in the Surgeon's hands; he

he is ſet as a counter-balance, and check over the ſeverity of the law, in this reſpect: does he abuſe this great charge committed to his truſt, then is he, indeed, juſtly blameable; nor ought a falſe delicacy, or an ill placed deference to officers, in matters of ſuch moment, to ſcreen him, if he be guilty, or leſſen his accuſation. He cannot reſtore life; he ought not, on any account, whatever, to ſtand unconcerned, and ſee it taken away, when he is to be its protector.

And ſhould any military gentleman, whoſe duty calls him to ſit on court-martials, ever chance to look into theſe pages, let me beſeech, let me entreat him, to weigh the matter of offence well; let the accuſation be fully conſidered, and let the unfortunate priſoner be well attended to in his ſtory.

Remember, he has generally few to ſtand his friends; let no prejudice affect him.—But, in doubtful caſes, let them lean always to the ſide of mercy,—for doubtful caſes will occur; where innocence, notwithſtanding the greateſt care to arrive at truth, will ſometimes ſuffer the puniſhment due to the guilty.

"Was it Mackey's regiment, quoth my uncle Toby, where the poor grenadier was ſo unmercifully whipped, at Bruges, about the ducats?—O, Chriſt! he was innocent, cried Trim, with a deep ſigh—and he was whipped, may it pleaſe your honour, almoſt to death's door—they had better have ſhot him out right, as he begged, and he had gone directly to Heaven, for he was as innocent as your honour."—"Honeſt Dick Johnſton's ſoul to be ſcourged out of his body, for the ducats another man put into his knapſack!—O, theſe are misfortunes, cried Trim, pulling out his handkerchief.—Theſe are misfortunes, may it pleaſe your honour, worth lying down and crying over*."

Misfortunes, indeed!—yet ſuch as will, in the courſe of things, ſometimes unavoidably happen. We ſee men occaſionally ſuffer death, for crimes they never committed, by the force of falſe witneſſes, though the Judges take all poſſible care to ſift the matter; and we have the ſame reaſon to expect that the witneſſes examined on court-martials, by Military Judges, may not always be influenced by truth; here, there is no room to accuſe the court; it muſt act by the witneſſes brought before it: it is all we have a right to expect, when they candidly, and impartially weigh the force of the accuſation with the priſoner's defence, and give judgment accordingly.

* Triſt. Shandy.

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I never knew an inſtance, ſave one, of unmerited puniſhment, nor could the blame in any degree be laid to the court; as it happened, the puniſhment was trifling, I think, only fifty laſhes. A ſoldier was found by the patrole, out of quarters, beyond the hour limited by orders; he was likewiſe without his hat, and ſtanding up by the wall; he was carried to the officer of the guard, who confined him, as it was his duty. At this time orders were ſtrict, on account of ſeveral depredations made on the property of the inhabitants, that had lately been committed, as was alledged, by the ſoldiery, which produced complaints from the magiſtrates to the commanding officer: his being found in this manner, and without a hat, weighed conſiderably againſt him; it was in vain that he urged he was ſtanding at the door of his billet, and that the door had been ſhut againſt him. The truth was, the landlord had thruſt the poor man out of doors, nor would he give him time to ſeek for his hat; it was a market day; the landlord had company in his houſe, and would not allow him to ſit by the fire, as he took up the room of a gueſt; to retire to his bed, he could not, for the room he was to ſleep

in was likewiſe occupied in this way: it was probable ſome angry words had paſſed between them; but however this be, the ſoldier was ſhut out, and found as already related. In the firſt place, orders were diſobeyed; and in the ſecond, the inn-keeper, when examined, inſiſted, that the ſoldier behaved ill: what could the court do? they were obliged to condemn. The poor man aſſured me, during the courſe of his cure, of his innocence. Puniſhed men ſeldom refuſed to confeſs to me, while I dreſſed their ſores, whether they were guilty or innocent of the crime alledged; but it was too late here, before I arrived at the truth, to prove of any ſervice; the deed was done, the puniſhment was inflicted.

Different regiments uſe different methods of puniſhing: in ſome to run the gauntlet, as they call it, is cuſtomary. This would appear a cruel method of treatment, even more ſo than flogging at the halberds. Here, inſtead of *Cats*, rods of willow are made uſe of; the whole regiment are drawn up in a line, two deep, face to face: every man is furniſhed with a willow; the priſoner runs naked, the whole length of the line, and every

every man ſtrikes as he paſſes; no regard can be paid in this way to the part they ſtrike; hence the ribs as well as the ſhoulders are wounded. I conceive, there can ſcarcely be a part from his neck to his heels, that has not received its ſhare. Hence appears its cruelty; I am, however, very little acquainted with it, and can ſpeak the leſs poſitively on the ſubject.

In others, again, a different method is in uſe; here they flog alternately on the back and poſteriors; I would object leſs to this than the former. The poſteriors, as well as the ſhoulders, can without much riſque of danger, bear a moderate puniſhment.

The mode is again varied in other regiments by the manner in which the laſhes are inflicted. In ſome regiments of the horſe, I am informed, it is always cuſtomary to count *ten* between each ſtroke; I deem this tardy method of proceeding, likewiſe, an addition to the puniſhment; when they are given more quickly, the patient has leſs time to reflect, and feels the leſs. I hope where this method of prolonging pain, is cuſtomary, an allowance is made by a fewer number. I ſhould ſuppoſe, that two hundred laſhes, trailed

out in this way, would be felt with more pain than ſix or eight hundred, ſuch as I have ſeen commonly inflicted.

Captain George Coote informs me, that when he lay at Gibraltar, between the years 1763 and 1770, a ſurgeon belonging to one of the regiments then in the garriſon invented a machine for confining the delinquent during the time of puniſhment; but both he and his machine was much decried by the men, and it ſoon fell into diſuſe.

It conſiſted chiefly, it ſeems, of a plank with holes cut in it, ſomething like the common *ſtocks*, to be ſeen ſunk in the ground, near the highways, and in ſeveral villages in this country. The culprit was placed on a ſtool before it, and his head bent down and put through one of the holes, and faſtened down. His arms were ſtretched out, and in like manner each put through other holes cut for that purpoſe in the plank. The feet and legs were faſtened together as he ſat on the ſtool. By this contrivance the back was expoſed to the puniſhment; nor could the ſufferer move, or ſwing about, as in the common way; but on trial it was found to be attended with great inconveniences, and in-

jury

jury to the men. Among theſe, none of the leaſt was the aukward poſture in which he was ſo long detained, with his head bent towards the ground: nor could the atmoſpheric air be ſo freely breathed by him, which I conſider as one of the greateſt of his ſufferings. An erect poſture is far preferable to this bent one, as the blood circulates with more freedom both through the lungs and the liver; the parts of the human frame where it ought, on no conſideration, to be interrupted. When its inconveniences were diſcovered, it was, by unanimous conſent of officers and men, laid aſide, and the old mode of the halberds again adopted.

Of the other puniſhments, viz. piqueting, and riding the wooden horſe, I cannot ſpeak much, having had few opportunities of ſeeing ſoldiers puniſhed in either of theſe ways. I am of opinion, they are not ſo frequently uſed as that of which we have chiefly treated here; nor am I certain whether the Surgeon has any concern with them. This is another reaſon why I may paſs them over.

Some regiments there are in the ſervice remarkably regular in their conduct. In ſuch, puniſhments are almoſt unknown. Where this

this great bleſſing prevails, it is doubtleſs to be attributed to a reciprocal attention in officers and men; in the former's not being cenſurably ſevere, nor watching, as it were, for accuſations, and catching at every trifling deviation from ſtrict military diſcipline; in the latter, to a due circumſpection in their conduct, and a careful avoiding every thing that might be conſtrued into offence againſt military law. The Inneſkillings, or ſixth regiment of dragoons, deſerve our eulogium here. I have been aſſured by their officers, and the behaviour of the privates during a year's reſidence at the place where I now live, proved it, that, for the ſpace of the previous eleven years and upwards, there had not been a puniſhment, nor any offence to deſerve it, among them; yet no regiment in the ſervice was better diſciplined; no diſobedience to orders; no want of attention in them to duty more here than in others: it was faſhionable among them to behave well; and the contrary, in an individual, would have been conſidered as a ſtain on the character of the whole, and would have been reſented accordingly. Is not this ſome proof, that flogging might be ſtruck out of the liſt of military puniſh-

puniſhments, and that, in moſt caſes, honour, the honour of a ſoldier, as I ſhall term it, might be a means ſtrong enough to act in its ſtead, and be ſubſtituted for it, while he that forfeited this honour ſhould ſuffer degradation? Where there is moſt whipping, there will be found moſt diſobedience; for few men can imitate the ſpaniel, and fawn the more, the oftener they are beaten; human nature revolts at this, and reaſon cries out againſt it. Flogging only ſerves to harden.

I have indeed been informed, that in ſome regiments, when they are obliged, or, in other words, it is thought expedient to inflict this puniſhment, the man is afterwards drummed out of the regiment, being thought unfit to remain afterwards in it; in theſe corps, experience has taught them, that ſuch a man is never, from the time he is flogged, a good ſoldier; his ſpirit is depreſſed and broken, and he becomes altogether careleſs of his conduct, and tenfold more irregular than before; does not this go a great way to prove that flogging, inſtead of adding to order and diſcipline, in reality injures the ſervice? The man is now bereaved of ſhame on one hand, and becomes a bad example to his comrades, if he is continued in the

the corps; and on the other, if he is diſmiſſed, there is a man leſs.

I ſhould be ſorry to ſee an Engliſh army ſo rigidly diſciplined as a German one, though I am told that of late there have been ſome attempts towards it; I ſhould not wiſh to ſee human reaſon degraded ſo low, and men drilled down to mere machines: when this comes to paſs, I ſhall tremble leſt deſpotiſm be too near our doors: a well-regulated army may be maintained and diſciplined to the wiſh of a rational commander, much ſhort of the ſeverity neceſſary for this; an army that will love, more than fear their leader, and will ſecond his intentions without the cane or the whip. That the ſeverity of the German diſcipline is great, and that far beyond what is ſtrictly neceſſary, is the opinion of ſeveral eminent men who have compared it with that of other countries. Dr. Moore, ſpeaking of French and German military diſcipline, ſays, "Theſe (the Germans) admit of the diſcipline of the cane on every ſlight occaſion, which is never permitted among the French troops. Notwithſtanding their being ſo plentifully provided with theſe ſevere flappers to rouſe their attention, I could not perceive that

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the German regiments went through their exerciſe with more preciſion or alertneſs than the French; and any difference, in my opinion, would be dearly purchaſed at the price of treating one ſoldier like a ſpaniel." Then he ironically adds, "Perhaps what improves the hardy and phlegmatic German, would have a contrary effect on the more delicate and lively Frenchman; as the ſame ſeverity which is required to form a pointer, would render a greyhound good for nothing." After all, he continues, "I queſtion very much whether this ſhocking cuſtom is abſolutely neceſſary in the armies of any nation; for let our Martinets ſay what they pleaſe, there is ſurely ſome difference between men and dogs."

Though the diſcipline of the Germans is cenſured here as ſevere, and, from the beſt information I have been able to collect, not without reaſon; yet I am happy to find there are men among them that do not take all the advantages that the military law, in this reſpect, puts in their power. As one inſtance of humanity even among German officers, where all allow the diſcipline to be extremely ſtrict, we ſhall relate the following, recorded by the reſpect-

reſpectable author above: Field Marſhal Sporken, as this author informs us, who, at the time he made this obſervation, was at the head of the army in the electorate of Hanover, never ſuffered his officers to order his ſoldiers to be caned for trifles, though they were puniſhed for real crimes by the ſentence of a regular Court-Martial; and though the diſcipline is thus lenient, when compared to the rigid obſervance of it in other parts of Germany, yet the troops were ſober, regular, and performed every eſſential part of duty well. With reſpect to caning, he adds, "Caprice is too apt to blend itſelf with this method of puniſhing, and men of cruel diſpoſitions are prone to indulge this diabolical propenſity, under the pretence of zeal for the ſervice."

No action whatever is ſo well performed, where force dictates, and fear mingles in it, as where the inclinations are concerned, and meet ſmiling, as it were, the mandate. Even religious duties, if they are exacted by puniſhments, are not performed at all, however the body may incline in ſeeming obedience. What man ever became holy by the Inquiſition? The old proverb will long hold good, that forced prayers are not piety. Our modern

poet, the facetious Peter Pindar, doubtleſs had this in view in his ſtory of the chaplain reading the ſervice to a ſhip's crew. A boy on board hides himſelf in an empty caſk, to prevent his being preſent at the duty; the boatſwain goes in ſearch of him, and finding him, flogs him with a rope's end, giving him his reaſons why he did ſo,

" Come out, and ſave your damn'd ſinn'd ſoul, I ſay !"

The poor boy, feeling the pain, anſwers, with tears of vociferation,

" I'll come, I'll come, but *damn* me if I'll pray."

Force made the boy obedient, but religion had little to do in the act.

What would we think in England of praying by tuck of drum; and praying too juſt as long, and no longer, than the Adjutant pleaſed, or the manœuvre required to finiſh it neatly? Yet ſuch is the mode uſed on ſome parts of the Continent, as a reſpectable author informs us. On the moſt trifling occaſion, he tells us, the Major's cane is exerciſed; and whim and caprice, where ſuch ſtrict diſcipline prevails, one may reaſonably conclude, not unfrequently govern its motions. Theſe are his words: " I was a good deal ſurprized to obſerve

obſerve, that not only the movements of the ſoldiers' muſkets, and the attitudes of their bodies, but alſo their devotions, were under the direction of the Major's cane. The following motions are performed as part of the military manœuvres every day before the troops are marched to their different guards: The Major flouriſhes his cane; the drums give a ſingle tap, and every man under arms raiſes his hand to his hat; at a ſecond ſtroke on the drum they take off their hats, and are ſuppoſed to pray; at a third they finiſh their petitions, and put their hats on their heads. If any man has the aſſurance to prolong his prayer a minute longer than the drum indicates, he is puniſhed on the ſpot, and taught to be leſs devout for the future." The author facetiouſly adds, "The ingenious inventor of drums certainly never dreamt of their becoming the regulators of peoples' piety."—*View of Manners in France*, &c. v. 1. p. 368. Edit. 6th.

Although I have, ſeveral times, in the courſe of this chapter, inveighed againſt the ſeverity of flogging, yet, when the nature of the crimes ſoldiers are often guilty of are conſidered, it will not ſeem altogether ſo cruel. Their of-

fences,

fences, for the moſt part, would bring them to the gallows, were they to be delivered over to the civil law: hence, inſtead of cruelty, it often becomes mercy and lenity; for, when compared to this ignominious death, the idea of ſeverity vaniſhes to nothing.

I thought it neceſſary to throw out theſe few hints relative to puniſhments, ſince part of a regimental Surgeon's duty is to ſee them inflicted. I wiſh, after all, the military laws knew no ſuch thing as flogging; and that, in place thereof, ſome other mode of puniſhment could be deviſed, leſs ignominious; on this head, however, I dare ſay nothing; it is out of my line of life. Though I wiſh it with all my ſoul aboliſhed, as an inhuman thing, more ſuiting the nature of ſavages, than civilized and poliſhed nations; yet, as I have nothing better at preſent to offer in its place, I muſt leave it as it reſts, and refer it to the wiſdom of a wiſe Legiſlature.

CHAPTER XIII.

THE UTILITY OF EXPERIMENTS.—DANGER OF OVER-HASTY PROGNOSTICS.

THE Surgeon ſhould inſtitute, whenever an opportunity preſents, experiments tending to advance the ſcience he is engaged in; none can enjoy better opportunities for the application of new and unuſual remedies than army Surgeons. The ſoldier is entirely at his diſpoſal, as ſoon as his name is entered in the ſick liſt; by this means he can repeat trials made by others, and put them to the teſt; or inſtitute new ones, ſuch as may ſeem to him to promiſe inſtruction, and be advantageous to practice.

" An experiment," ſays a learned author, " differs from a ſimple obſervation, in as much as the knowledge that an obſervation affords, ſeems to preſent itſelf ſpontaneouſly to us; whereas, the knowledge we derive from *experience*, is the reſult of ſome attempt we have

made, with a view to ſee whether a thing *is*, or is *not*."

"A phyſician, therefore," (we always place the army Surgeon in this light) "who carefully conſiders the whole of the phænomena of a diſeaſe, may be ſaid to make obſervations; and he, who in the courſe of it exhibits any remedy, and notes its effects, may be ſaid to make an *experiment*."

That to make experiments, may require more than the medicines commonly in uſe, we grant; but if the Surgeon has improvement in view, he will not ſtop here for the ſake of ſaving a trifling expence. A little money expended in ſuch laudable purſuits, will be conſidered as nothing, when compared to the ſatisfaction he may receive, or the good he may do, both to himſelf and others.

By trials of this kind, it may be in his power to confute too haſty, or confirm ſtill farther, well grounded concluſions. In his experiments, I would not confine him to articles alone now in uſe in the materia medica: others not yet received, may, occaſionally, be had recourſe to, and their virtues inveſtigated; but all trials on the human ſubject, hazardous to ſafety, are ever to be avoided.

It is not meant here to exclude chymical experiments, if he has an opportunity of exerciſing his genius in this way; theſe may be proſecuted in the army, though not, indeed, very extenſively. It will require no very expenſive apparatus to repeat many ingenious experiments on the different kinds of gaſs; if no uſe to practice ſhould reſult from them, they may prove, at leaſt, a virtuous amuſement, and fill up a leiſure hour more laudably than in diſſipation, idleneſs, or the purſuit of folly. He may try the different degrees of ſtrength in the different articles of the materia medica in decoction, and infuſion; and perhaps, be able, ſometimes, to take advantage of the knowledge he gains by this in his future practice. He may be more fully enabled to tell in what parts of the ſubſtances the chief virtues lie; whether in the gummy or reſinous parts, (I ſpeak of vegetables) and in what proportion they are to each other.

He may try the different antiſeptic powers of different articles, in like manner, without much trouble, and thereby ſatisfy himſelf of the truth of what authors have advanced on the ſubject; and in theſe kind of trials, who knows, but he may be happy enough to diſcover

cover ſomething which was over-looked by thoſe whoſe experiments he is now imitating, and be led from thence to furniſh us with a better explanation of the *modus operandi* of theſe articles, that may point to a better, or more efficacious method of applying them to the human body.

To conduct experiments, requires, however, no uncommon ſhare of ſagacity, when it is conſidered how ſmall a deviation, in many caſes, may occaſion a very eſſential difference in the reſult. Any miſtake, or neglect, however trivial it appears to the leſs attentive, may form the grounds of very erroneous concluſions; but notwithſtanding, we may agree with the learned Zimmerman, that "A man of genius will ſoon perceive the modification he is to adopt, when he is about to put the precepts of others in practice."

It muſt undoubtedly be ſome miſtakes of this ſort, that cauſe the great variation, which we find in the reſults from the ſame experiments, made by different perſons; innumerable inſtances of this might be adduced from the writings of medical and philoſophical men. There are few who have made any progreſs in theſe ſciences, that have not, in the courſe

of their reſearches, had reaſon to lament it; much ingenuity has been thrown away to no purpoſe; perplexity has been created, and truth, inſtead of appearing obvious, been involved in tenfold more obſcurity*, to the fatigue and mortification of the ſtudent, who from this alone, often becomes diſguſted at the uncertainty which ſurrounds him, and laments the mazes in which he finds himſelf entangled.

In our obſervations, previous to an experiment in practice on the human body, many things are to be conſidered; the patient's age, conſtitution; the former diſeaſes under which he laboured, and their ſequelæ in changing, or weakening the habit it may likewiſe be expedient to know, as well as the preſent complaint, and its duration; the ſtate of his urine, pulſe, reſpiration; whether he breathes freely, or otherwiſe, and to what it may be attributed, ſhould his reſpiration be impeded; nay, even, the poſition in which he lies in bed ſhould not be overlooked; an uneaſy poſition in bed may affect reſpiration, and create a change

* Examples in thoſe made on the Nervous Syſtem, alſo on thoſe more recently made on Heat.

in the pulſe, which a leſs attentive obſerver may be ready, raſhly, and erroneouſly to attribute to the medicine laſt given, and mark it down as ſuch; or, perhaps, to a cauſe more dangerous in its nature, an affection of the organs of reſpiration themſelves, &c.

Theſe, and many other minutiæ, are attentively to be obſerved, and referred to their proper ſources, in calculating the effects of a medicine, and forming a juſt eſtimate of the reſult of the experiment; effects from ſome, or all of theſe cauſes may take place, and miſlead us in the concluſion. It muſt be ſomething of this kind that obtains certain medicines credit, which better information ſhows they did not deſerve; or cauſe others to be rejected, when they ſhould have been held in eſteem. The many trifling compoſitions, which have from time to time been in great eſteem for the bite of rabid animals, is a ſtrong proof of the one, and the no leſs bitter invectives that were once thrown out againſt the uſe of the Peruvian Bark, is a glaring inſtance of the other.

A faithful regiſter from the time our experiment commences, of every change in the patient, ſhould be kept, and our obſervations,

now eſpecially, made with care and circumſpection.—" Obſervations," ſays an eminent author, " ſhould be exact, clear, and faithful."—If this be neceſſary at all times, it is ſurely punctually to be attended to in making an experiment. In practiſing medicine, nothing, truly, is more neceſſary; yet obſervation, as it is here meant, moſt certainly requires a particular *genius*, a turn of mind, that cannot be ſupplied by the moſt *laboured induſtry*. Some, we know, contend, that more is attributed to genius than it deſerves, and even go ſo far as to deny that there is any ſuch thing; yet while ſo many proofs to the contrary daily appear, we muſt beg leave to diſſent from them.

With reſpect to a genius for obſervation, " it is eaſy," ſays Zimmerman, " to diſcover it in each individual, by obſerving how he is affected at the theatre; or at the ſight of a picture, or a piece of mechaniſm, &c. One perſon will ſee only the dreſſes of the actors; another notice the decorations of the theatre; others attach themſelves to the attitudes, and geſtures of the performers; all theſe ſpectators," he continues, " are directed in their

taſte

taſte by ſome particular *paſſion*, and go to the theatre to flatter that paſſion, &c.

In the line of philoſophical knowledge, we ſee likewiſe this variety of inclination; this varied taſte. Whoever refuſed to admit that Sir Iſaac Newton had a greater taſte, a bent of inclination, or genius for mathematics, than for poetry, or perhaps any branch of the fine arts? All the induſtry it was poſſible for him to apply, could never, in my opinion, have given him abilities to write Paradiſe Loſt, the Iliad, or the Æneid; and *vice verſa*, the authors of theſe three great epic poems, could never have unfolded to us the laws of attraction and gravitation, or *untwiſted*, if I may be allowed the expreſſion, a ſun-beam into ſeven diſtinct and perfect colours.

In the purſuit of the different parts of medical ſcience, one ſhews a predilection for anatomy; a ſecond ſoon diſcovers a bias towards chymiſtry; while a third, contented with a more ſuperficial knowledge of theſe, is led to excell in the operative parts of ſurgery, and the dexterous uſe of the knife; while another, ſtill, is more eſpecially led to conſider the pathology, and phiſiology of the body,

body, the phænomena of diſeaſes, the exhibition of medicines, and poſſeſſes a talent for *obſervation*, tracing their action on the ſolids and fluids of the living animal, and forming uſeful concluſions from thence. Nay, perhaps, there is no perſon, whatever, that does not poſſeſs a particular bias to one purſuit, in preference to another, independent of example, imitation, or habit; and this I would denominate *genius* for theſe ſeveral ſtudies; and to me it appears a full proof that ſuch a thing as genius exiſts.

Helvetius, Johnſton, and Smith, have denied that genius preſides in ſo great a degree; and maintain that a man may be what he pleaſes, if he applies himſelf. This, in its full extent, will hardly be found to hold; moſt certainly not, in poetry, and the fine arts. If genius be a ſtrong bent of inclination, with capacity for a particular purſuit, that puſhes a perſon forwards, and gives him fortitude, and perſeverance, to ſurmount all difficulties that preſent themſelves in it; where this is not to be found, the mind ſurely muſt flag, and excellence never be obtained. More, I am ready to allow, may be attributed to genius, than it deſerves; but to deny its force entirely,

tirely, would be raſh, and contradictory to the evidence which every day's experience affords.

But to return; we ſhall now ſuppoſe, this inclination, this genius, if you pleaſe, preſent, and that the Surgeon has a natural turn for the cultivation of the different parts of his profeſſion; for if this be not the caſe, he is wrong in entering upon it, and has thereby deprived ſome other branch of buſineſs, for which nature had deſigned him, of a member;—he reads of experiments, as he peruſes authors; he is deſirous of knowing the truth, and of repeating them; or, perhaps, he doubts of the truth of the reſults, from what ſeems to him the want of probability; or, he is led to make new ones from ſuggeſtions of his own. I ſay, doubts from want of probability; for, perhaps, to doubt, may be conſidered as a mark of his ſagacity and diſcernment. Perſons of little genius or diſcernment, are ſeldom troubled with *doubts*, but take things as they are told them.

When I advance this, I am not ſingular in my opinion;—Zimmerman, who was a man of much obſervation, has told us the ſame thing,—"The man of genius, alone, is able," he

he ſays, " to determine within himſelf the degrees of *probability*; and hence it is, that he alone can become a great miniſter, a great warrior, or a great phyſician. Such a man knows *how to doubt*, when he perceives, that the reaſons why any particular thing ought to be believed, are of little value; and, on the other hand, he knows how to act, when there is greater reaſon for certainty, than *for doubt*.—Men of little minds are not ſuſceptible of doubts of *this ſort*."—But he very juſtly adds—" and they who do nothing but doubt, are incapable of acting like men of genius *." —So, that we find, both not *to doubt*, and to *doubt* too much, are extremes, which the man of genius and diſcernment equally ſhuns.

If the Surgeon, then, is to repeat the experiments of others, made on the human ſubject, that which he is to imitate, is carefully to be peruſed, and every circumſtance ſtrictly kept in view. From the time he has come to a reſolution, a proper opportunity is to be ſought for his purpoſe; all poſſible juſtice ought to be done the experiment, both on the experimenter's account, whom he has thus under judgment, and for the ſake of medical

* Vid. Experience in Phyſ.

medical improvement, and truth. The ſubjects of the trial ſhould be as ſimilar to one another, as the nature of the thing can admit, or the ſubject requires; otherwiſe he has no right to call this a *teſt*, or to regard it, in any meaſure, either as a confirmation, or refutation of the experiment under conſideration. But we muſt repeat here again, that no trial, dangerous to the patient's life, is ever to be riſqued: this would not only be wantonneſs, but wickedneſs; and highly criminal, if done knowingly.

Medicines that have been long in the hands of quacks, and that have kept their credit for ſome time with the public, may be analyſed, if convenient, and their virtues inveſtigated; if upon this, they are found to poſſeſs activity, trials, in certain determined doſes, ſhould be cautiouſly made, in diſeaſes ſuch as they have been famed for curing.—For, although, moſt quack medicines and noſtrums, are ſome common ſubſtances, and often even *formulæ* of them, either now, or heretofore, in daily uſe, triflingly changed for the ſake of diſguiſe; yet we now and then find one among them of great activity, which from cauſes, ſuch as we have formerly mentioned, has fallen

fallen into diſuſe with regular practitioners, but which, on account of its activity, ſhould ſtill have held its place in the materia medica. Theſe, by his cautious trials, he may be able to reſcue from empiriciſm, and reſtore again to their deſerved conſequence.

The uſe of arſenic, though formerly employed by phyſicians, has long been almoſt baniſhed regular practice, till lately. Perhaps, the diſcovery of the Peruvian Bark, might have been one cauſe of this; whether this be ſo or not, the ſucceſs that followed its uſe, in the cure of intermittents, diſguiſed in a noſtrum, prepared by *one Edwards*, under the name of his *taſteleſs ague drops*, could not eſcape the notice of the regular faculty.

The hiſtory of thoſe drops is as follows: —Upwards of twenty years ago, as I am informed, Mr. Mowbray, now phyſician and ſurgeon of the Dock-yard at Plymouth, at that time a ſurgeon at Biggleſwade, gave a trifling ſum to the wife of a German quack, who had left her in indigence, for a receipt for the cure of agues, the principal ingredient of which was arſenic: this receipt he, with a becoming liberality, communicated to ſeveral of his medical friends in London. Aguiſh complaints,

plaints not being ſo frequent in London as in the country, they had no opportunity of aſcertaining its efficacy. Mr. M——, however, gave it with wonderful effect. At that time he had a ſhop-man of the name of Edwards, who uſually prepared the medicine. Edwards, if we are not miſtaken, ſettled afterwards at Newmarket, and vended this medicine under the name of his ague tincture. His formula*, as I am now aſſured, does not contain above one half more arſenic to an ounce of water, than that uſed by me.

None, however, took up the ſubject, till Dr. Fowler, of Stafford, turned his attention that way. He analyſed it, aſcertained its nature, and performed many ſpeedy cures, not only on agues, but in ſome other diſeaſes, by a ſolution of this mineral, in imitation of theſe noted *drops*.

Similar experiments have been ſince repeated by different practitioners, both in the metropolis, and in the country, in varied doſes, but ſtill with equal ſucceſs. The num-

* Vide Britiſh Critic, No. I. v. 3. for January 1794.—For the above anecdote I am indebted to the Editors of the above publication.

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ber of cures, given us by Dr. Fowler, are many*; and Dr. Willan, amongſt others, has publiſhed ſeven caſes of its ſucceſs in agues;—at the end of which, he adds,—"the above caſes I have given in detail, as being the firſt which occurred, and thence ſoliciting more particular attention; it ſeems only neceſſary farther to add a general report from the ſum total of patients treated in this manner. The ſolution was preſcribed for about *forty others*, in different ſpecies of intermittents, and ſucceeded almoſt inſtantaneouſly, in every caſe†." The ſolution he uſed was made according to the formula, publiſhed in Dr. Fowler's work on the ſubject.

In like manner, I thought it incumbent on me to make trial of it. In the courſe of the laſt few years ſeveral opportunities preſented, in every one of which, it ſucceeded to my wiſh, and without the ſmalleſt accident, or inconveniency whatever, during its uſe. My formula differs, however, ſomething from Dr. Fowler's, in its being more ſimple.—I found it unneceſſary to add either nitre or alkali, nor do I always diſtill the water in which I diſſolve it. I take ſix ounces, by weight of

* Vid. his Med. Reports of Arſenic.

† Vid. Lond. Med. Journ. v. 1. part 2d. part 191.

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the common culinary water, uſed in this place, and add to it twelve grains of the white arſenic, of the ſhops, reduced to powder; this I place in the heat of 212 degrees, or that of boiling water, the phial being only ſlightly corked, to allow any air which may be extricated, to eſcape. During the time of ſolution, the phial may be briſkly ſhook now and then, though I do not know whether this be abſolutely neceſſary; in leſs than three quarters of an hour the ſolution is compleat. When it cools, the bottle containing it, is again weighed, and as much of common water, or for the ſake of giving it colour, of ſp. lavend. is added, as was found to have evaporated during the proceſs to make up exactly the ſix ounces. By this means the doſe is more accurately calculated, a convenience which I conſider as of ſome conſequence.

In the laſt edition of this work, I was guilty of an omiſſion when ſpeaking of this medicine, and I think it right to ſupply it now. I ſhould have obſerved, that it is proper always to filtrate the liquor after ſolution through bibulous paper. By this precaution, not only duſt, which has fallen into the phial during the time of ſolu-

tion will be cleared out of it, but what is of more importance, any granules of the arſenic remaining undiſolved, will be likewiſe retained in the filtre. In a ſubſtance ſo active as this, every precaution ought to be uſed, leſt it ſhould affect the ſtomach, and induce ſymptoms, if not dangerous, at leaſt troubleſome, and retarding recovery. I uſe now always diſtilled water; the ſolution is the more complete by this means, and it is eaſily procured; for if a few gallons be kept in large bottles, well corked, it will remain freſh for years. I have kept it upwards of three, without any perceptible change. This will depend, however, on the mode of the diſtillation, by an equable heat, and by not purſuing it too far. A conſiderable portion of the water uſed ſhould remain in the bottom of the ſtill, when the operation is ſtopped.

I have diſtributed this ſolution to ſeveral practitioners in this neighbourhood, with directions for its uſe, in order to collect their practice, and form a concluſion from as large a number of trials as poſſible; in every inſtance, that has come to my knowledge ſince, it has proved ſucceſsful. The following I ſhall detail from the firſt of my own trials;

trials; and exactly as I find them in my notes.

CASE I.

Green, a ſoldier in the Queen's 2d regiment of Dragoon Guards, quartered in Ipſwich, aged 30, put himſelf under my care, Auguſt 7th. 1786, by the deſire of Mr. Hamilton, Surgeon to the regiment. His complaint was a *quartan*, under which he had laboured many months;—the fits are long and ſevere;—has taken pounds of bark; and often upwards of an ounce a day. By this means his fits were generally ſuſpended for a ſhort time; ſometimes he has remained free from them for two or three weeks, but the diſeaſe always recurred. It occurred to me, to try arſenic, having, a little before that time, peruſed Dr. Fowler's reports, relative to this mineral.

As this was my firſt experiment, I made uſe of only one grain to the ounce of water, which I had diſtilled as directed by Dr. Fowler for the purpoſe; the bottle into which it was put was ſuſpended in a veſſel full of water, (as already deſcribed) and ſet on the

fire to boil.---When the arſenic was diſſolved, the ſolution, when cold, was weighed, and ſix ounces, the quantity I prepared, was found to have loſt three drams by evaporation; to ſupply this, 210 drops of common water were added; I calculated this to be the quantity loſt, allowing 70 drops to the dram; no allowance was made for any loſs the arſenic might have ſuſtained, judging it to be trifling. Aug. 8th. hor. 10. A. M. gave of this gutt. xxxv.--in a little common water---ordered it to be repeated at four, and at ten P.M.

Aug. 9th.—No inconveniency from the medicine; at nine this morning the ſame doſe, as yeſterday, repeated—at ſeven P. M. took a ſecond—the fit returned this day, and prevented his being regular in the time of taking his medicine:—only two doſes, therefore, were given this day: medicine cauſed no ſickneſs—his appetite, he thinks, rather impaired; the fit was ſhortened this time a full hour.

Aug. 10th.—This morning took forty drops—and repeated it, to the third time, at the diſtance of ſix hours from each—no other inconveniency than a ſlight degree of impaired appetite.

Aug.

Aug. 11th.—Took the medicine, as yeſterday—without inconveniency—two hard ſtools to-day; to-morrow expects his fit about two P. M.

Aug. 12th.—Took gutt. 50—thrice to-day, and at ſix hours diſtance each—fit commenced an hour later---was not leſs ſevere than formerly. The laſt doſe puked him a little, and he had ſeven ſtools.

Aug. 13th---Omit the drops---let him have an emetic.

Aug. 15.---This day had recourſe to the drops---took gutt. 50, thrice as before---did not make him ſick---fit returns to-day.

Aug. 16th.---Had little or no fit yeſterday---medicine did not make him ſick.

Aug. 17th.—Yeſterday no inconvenience from the drops---had four ſtools---appetite not impaired---to-day took gutt. 60---thrice.

Aug. 18.—Yeſterday had only one ſtool---drops did not give uneaſineſs—this morning is a little indiſpoſed, or faintiſh, as he calls it—expects his fit to-day.

Aug. 19th.---Had no fit yeſterday---took his medicines---had only one ſtool---complains to-day of a ſlight pain acroſs the abdomen;---

yet, augmented his medicine to-day to gutt. 65---with orders, that if the pain increaſed, he ſhould take only two doſes.

Aug. 21ſt.---Yeſterday had no fit---medicine gave him three ſtools—no ſickneſs.

Sept. 3d.---Is compleatly cured.

I may add, he remained ſo for upwards of ſix months after, i. e. till the regiment marched to other quarters.

The reader will perceive, this cure took up twelve days. i. e. from 8th to 20th inclusive; for on the 21ſt no medicine was given---and he began it on the 8th---the reaſon, perhaps, it did not yield ſooner, was owing to my cautious doſe; I thought it ſafer, as it was my firſt trial, to be rather under, than over in my doſe.

CASE II.

Samuel Thompſon, aged 21,---a ſoldier in the ſame regiment---was ſoon after put under my care by Mr. Hamilton, ſeeing the ſucceſs I had with Green.---This was a quotidian of ſix weeks duration; fits return daily between eleven and twelve.---I began with gutt. 35, of the ſame ſolution, of one grain to the ounce, and repeated it at the diſtance of

ſix hours, to the third time. The day before I began with him he had an emetic, which operated well---report--yeſterday had his fit as uſual---medicine has had no ſenſible effect---this day to be repeated as yeſterday.

Finding it tedious to meaſure out ſo many drops, I thought of preparing the medicine of double ſtrength, but was uncertain at this time whether I could diſſolve two grains in an ounce---on trial, however, I found no difficulty * ;---of this I began with gutt. xx. ter de die.

Morning report.---Had his fit yeſterday as uſual ; no ſtools from the medicine----to-day the medicine to be repeated to gutt xxxv.---each doſe, at the diſtance of ſix hours exactly.

Morning report. — Yeſterday had three ſtools---fit returned an hour later---leſs ſevere---medicine griped him a little---but no other inconvenience---ordered the ſame to-day as yeſterday.

Morning report.—Had three ſtools yeſterday---miſſed his fit entirely---only about the hour of its former occurrence, felt a little anxiety---medicine griped him conſiderably---appetite impaired---ordered to intermit the

* I have diſſolved three grains to the ounce ſince this.

medicine---two days now intervened without any---at the end of which---report----no fits ſince.---Repeated the medicine two days more ---quantity as before----no fits----report two days afterwards----continues well----diſmiſſed cured.----In like manner he remained well till the regiment marched into different quarters.

I gave Mr. Hamilton ſome of the ſolution, requeſting him to try it, when opportunities offered. Some time afterwards he reported to me ſeveral caſes of its ſpeedy ſucceſs, both on the ſoldiers, and on a few paupers in the town, whom he found labouring under intermittents.

CASE III.

John Gould, Eſq; near this town, requeſted me, a few weeks ago, to give advice to a poor man, called Hynd, at that time one of his labourers, at haymaking, whom he found one day in the meadow ill. He had been afflicted with a quartan for ſeveral months--- I gave him the ſolution, beginning with gutt. xxv---ter de die---two days after he had his fit---but not leſs ſevere---the medicine neither griped, nor gave him any uneaſineſs. I encreaſed

creaſed it now to gutt xxx---ter de die.---The ſecond fit was conſiderably ſhortened---no looſeneſs, nor gripes.

Continued it at this doſe ſome days longer---he eſcaped the third fit altogether---had two or three looſe ſtools, and a ſlight pain acroſs the abdomen---diſcontinued the drops for three days---at the end of which, repeated them three days more---no return of the fits---diſmiſſed cured---with orders to return in a week, to report how he had been in the intervals---continues well*---Quartans are allowed to be the moſt obſtinate of all the kinds of intermittents---but this laſt yielde', in a ſhort time, to the medicine---perhaps, had I ventured on a larger doſe it would have yielded ſooner; but I think it ſafer, with ſo active a medicine, not to be too bold.

The medicine ſold under the name of Edwards's Taſteleſs AgueDrops—has certainly a much larger proportion of the arſenic†, in a given quantity, than what I ventured to preſcribe.—As the doſe is only ſeven drops, and

* Some weeks have now elapſed, without any return of his complaint.

† The difference of ſtrength has been already mentioned in this chapter.

yet

yet the effects are ſometimes, it is ſaid, violent. The doſes are ordered to be repeated at the diſtance of nine hours.—It is but juſtice, to add, however, that a practitioner here, aſſures me, he has adminiſtered thoſe very drops, and he adds, uſed many a bottle of them,---for ſeveral years, in caſes of the intermittent kind, with perfect ſafety, and ſpeedy ſucceſs.---This ſurely ſpeaks greatly in favour of arſenic---for it is not now doubted that this is the mineral which gives activity to this noſtrum.

In the winter of 1781---and ſpring 1782 ---I had a ſoldier whoſe ague I was not able to overcome,---he had got bark, and other medicines, in uſe for the diſeaſe, till he was tired of taking them.--He ſeldom was free more than a week.---Marching into Royſton, in the beginning of July, where the men were to remain a week or two ; he was again taken ill.---I was adviſed to try the Taſteleſs Drops. ---I had ſome reluctance to exhibit a medicine, the compoſition of which I was ignorant of, but by the perſuaſion, chiefly, of his Captain, I complied. He took them only a few days, when his ague left him, and never returned afterwards, during the time I knew him,

him, which was more than a year.---Yet, I confeſs, this did not induce me to try the medicine, again, till I ſaw Doctor Fowler's reports.

It is needleſs to tire the reader with more caſes; the medicine, I am perſuaded, will be found on moſt occaſions, eſpecially in intermittents, a ſafe and efficacious cure, if adminiſtered with that care and circumſpection, which the regular practitioner is bound in duty to uſe with every active article of the materia medica,---nor ſhould it be the leaſt objection, that it is one of the moſt powerful poiſons with which we are acquainted; ſeveral other articles in daily practice are not leſs ſo; for inſtance, hydrarg: muriat:---Nay, it is true that ſubſtances of ſuch activity form the moſt uſeful part, of what are denominated articles of the materia medica, and from theſe we may hope for moſt ſucceſs in the cure of diſeaſes. This ought to be one ſtrong reaſon, however, for employing the regular faculty, and the ſuppreſſion of quackery.

Since theſe caſes were firſt laid before the public, I have uſed arſenic in a variety of inſtances and to perſons of all ages, even from ſix or eight months old. For in this country, where

agues

agues are frequent, I have met with them in children not exceeding their firſt year; my doſe of courſe was proportioned to their tender age, and I am happy not to have it in my power to recount a ſingle inſtance of its failure in the intention for which it was adminiſtered, or of its producing the leaſt diſagreeable conſequences. It is now a medicine of very frequent uſe in this neighbourhood among all deſcriptions of practitioners. It has been tried likewiſe in a variety of other diſeaſes beſides thoſe of the intermitting claſs, and in many the reports have been very favourable: it bids fair for being uſeful where powerful tonics are indicated, for in this view it appears to me that its chief action conſiſts. Its want of ōdour and taſte, and the ſmall bulk of which its doſe conſiſts, render it extremely convenient to many ſtomachs, whoſe irritability will not ſuffer them to retain the more coarſe and bulky medicines of this tribe. In young children, and indeed in any age where reaſon has not begun to exert her power, thoſe ſubſtances of a nauſeous taſte and diſagreeable flavour are conſtantly refuſed, nor can even force make patients ſwallow them. To poſſeſs a medicine then, to which

which theſe objections are not liable, is ſurely a great acquiſition.

Arſenic has been tried in other diſeaſes, beſides intermittents, not without ſucceſs.---Mr. Hamilton, already mentioned, ſays, he cured a ſoldier of an epilepſy thereby, ſince the time when I taught him to prepare it.--I tried it in a caſe of this kind, in the ſpring of 1787, for ſome weeks, but it was without ſucceſs.---It was, however, a caſe of long ſtanding, in which numberleſs medicines, by a variety of practitioners had been employed, at different times, for ſeveral years paſt.---A Surgeon, at Bury St. Edmund's, in this county, informed me, ſometime ago, he was trying it on an epileptic patient, and he had ſome reaſon to think, from what he had obſerved during the time he had adminiſtered it, that he ſhould be ſucceſsful, ---but I have not had an opportunity ſince of knowing the reſult of this trial; on the whole, it is the duty of every practitioner to repeat trials made by others, or make new ones himſelf, as he ſees opportunities, and as ſuggeſtions of this ſort occur to him, and among theſe, it is no leſs the duty of the regimental Surgeon.

In

In the months of September and October, 1781, many of the ſoldiers were ſeized with the Typhus, as deſcribed by Profeſſor Cullen. The uſual ſymptoms, with depreſſion of ſpirits, and ſudden loſs of ſtrength, formed the diſeaſe. In ſome caſes the head was violently affected, in others, only a giddineſs, with but little pain, and alternate hot and cold fits of ſhort duration; but theſe were often ſo violent, at night eſpecially, that when the patients came to report themſelves ſick, and be put under my care, they deſcribed their complaints as a quotidian, or *one-day fever*, as they termed it; the ſtate of the pulſe was generally, ſomewhat, though for the moſt part, but little accelerated, and the conſtant thirſt and parched tongue that accompanied it, aſſiſted to point out the nature of the diſeaſe, and eaſily diſtinguiſhed it from an ague, where all the ſymptoms, in the intermiſſion, for the moſt part, vaniſh, and the patient appears as in health.

The ſeaſon proved very variable; one day rain, another clear and warm, but a hoar-froſt, which covered the ground frequently in the morning, rendered the air, as it diſſolved, cold and chilly, for a conſiderable part of the day. The regiment was but thinly clothed,

the

the men not being permitted (for ſome reaſons, beſt known to the commanding officer) to wear their new clothes, before the beginning of December; theſe were the evident external cauſes of the fever; the irregularities of the mens' way of living may be mentioned as occaſional and exciting cauſes. In theſe fevers, however, I always ſuſpect contagion, though I may not be able to trace it.

I found very few of theſe fevers that required the free uſe of the lancet; of this I am always ſparing, when there does not appear to me to be abſolute need of it. For I have often found, where it is improperly uſed, that recovery is not only more doubtful, but the diſeaſe ſeems thereby protracted to a later period, by an encreaſe of debility. Some died, after lingering to the twenty-ſeventh day; but moſt of them recovered.

About this time a correſpondent ſent me from Edinburgh, a book intitled, a Phyſiological Diſquiſition, and Enquiry into the Principles and Common Practice in Fevers, in that city, wherein was recommended a practice taught by Dr. Brown, founded on different principles from the common. To confirm theſe new opinions, a numerous train of

caſes

caſes was advanced, which had terminated happily by it; and contraſted with theſe, were ſeveral that had ended fatally by the old practice, in the Royal Infirmary of Edinburgh.

In this enquiry, publiſhed by Dr. Jones, much ingenuity of argument is uſed to induce the reader to diſbelieve all the diſtinctions of Noſologiſts, and to inculcate the opinion that all the genera, and ſpecies, &c. into which diſeaſes are divided, may be reduced to two alone, namely, thoſe from debility, or *aſthenic*, and thoſe ariſing from too high a degree of health, or *ſthenic*. We are told, alſo, that the doctrine gained ground among the unprejudiced, and many of ſuch as were heretofore adherents to the Cullenian ſyſtem, which this oppoſed.

In the claſs of *aſthenic* diſeaſes, the cure conſiſts in ſtrengthening, and ſtimulating medicines, and the quickeſt of operation, and moſt *diffuſible*, to uſe the author's term, are to be preferred. Hence wine, brandy, opiates, and volatile alkali were given to a degree, never ventured on before, eſpecially opiates; and the change for the better, that almoſt inſtantly followed, were ſpoken of as incon-

teſtible

teſtible facts, to prove the ſuperiority of the doctrine.

Willing to find the truth as far as I was able, and not ſlaviſhly bound down to any man's opinion, or ſyſtem, as ſuch, I watched from this time, the firſt favourable opportunity to make trial of this doctrine, which promiſed ſuch advantages: out of ſix men, therefore, ill of the fever, already mentioned, I choſe one for the ſubject of the experiment, which appeared to me the beſt adapted for giving it the faireſt trial. It was one, where all the ſymptoms of debility were evidently marked, ſo that I could in no wiſe miſtake its *aſthenic* nature. It was, as near as I could find, the eleventh day of the fever; for ſoldiers are generally ſeveral days ill before they report themſelves in the ſick liſt, if they think they ſhall be confined to the hoſpital, to which many of them have an averſion.

C A S E.

Bates—of the General's company, with all the ſymptoms common in Typhus, head-ach, parched tongue, proſtration of ſtrength, reſt-

leſs nights, fluſhed cheeks, delirium, pulſe about 74 beats in a minute.

At eleven—A. M. a dram of ſp. C. C. to which were added gutt. xl. of Tinct. Opii.—in an hour after, pulſe roſe to 80.—The opiate did not induce ſleep. He roved violently as before.—The room was darkened, and all noiſe kept from him, as much as poſſible.

Viſited at four P.M. ſame day.--Pulſe now 76 --and ſmall--delirium as before.--I ſhould mention, that he had ſlept little or none at all for ſeveral nights before this plan commenced, but was all this time delirious. The ſame repeated as at laſt viſit.---Here then were no leſs than ſp. C. C. dr. ij.---with Tr. Opii gutt. lxxx. adminiſtered in the ſpace of five hours. ---But as this was trifling to the quantity recommended by Dr. Brown *, I could not call it a fair trial, if I ſtopped here, without purſuing his ſtimulating plan farther.

At half paſt ſeven---returned---this was three hours and an half from my laſt viſit---found him quiet, and was informed by the nurſe, he had been ſo for ſome time. On entering the room, however, he lifted up his eyes, which were heavy and red, and he

* Vid. Jones's Enquiry, already mentioned.

began

began to talk wildly,---yet named me as ſoon as I came near.---Gave him now a tea-cup full of red port---pulſe 80.---At half paſt eight viſited again---gave another tea-cup of port---at ten, another cup of port, to which Tr. Opii g. xxv. were added---at twelve the ſame night viſited---another cup of wine was given.---Here were no leſs than 105 drops of Tr. Opii in the ſpace of eleven hours.

From this time till eight next morning (Monday) he drank about ten ounces of beef tea---this was always given warm---his pulſe 84---tongue moiſt.---I began now to form ſome hopes of his recovery---yet he roved almoſt as much as formerly.---I went on further with the plan, and gave him gutt. lx. of Tr. Opii in a cup of wine---took no more of the medicine this day---continued much the ſame.---Next morning at ten, A. M.---found his breaſt and ſhoulders full of maculæ---his pulſe 76---and ſeemed ſilly---turned up the white of his eyes a little---was, nevertheleſs, ſenſible when ſpoke to---called me by my name---complains of great ſickneſs---attempted while I ſtayed to make water, but could not---drank, ſince laſt night, a pint of beef tea---at one P. M. got a cup of wine.

Viſited an hour after, viz. at two, and found him quiet---at four, and gave him another cup of wine---at nine, and found him ſinging, when I entered, and talking fooliſhly ---his teeth and lips furred over, and black, with pulſe at 88---this was ten beats more frequent than in the morning.

As the delirium, which never abated, was now encreaſed, and he had got no opiate this day, I ventured on a larger doſe than I ever gave before, viz. Tr. Opii gutt. lxxxviii.--- Next morning viſited him at nine, and found him doſing---was informed by the nurſe, that he lay very quiet through the night. Pulſe now ſlow and equable---I thought him better on the whole---at eleven A. M. got another cup of wine.

I was willing now to intermit a while, and obſerve what the effects of this laſt doſe might be, ſo gave nothing more till next day at eleven, A. M. when I found him not only roving as uſual, but with ſubſultus tendinum ---frequently convulſed, and pulſe very feeble and up to 108.---His death now appeared inevitable---got a cup of wine---ordered his head to be again ſhaved---for it had been ſhaved before---and a large bliſter to be ap-

plied

plied over it. A gliſter was adminiſtered before the application of the bliſter---this gave him a ſtool---made water alſo.

While I was preſent he ſuddenly ſtarted out of bed, and I ordered him to be ſupported ſome minutes on his legs---delirium more encreaſed---eyes wild.---At eight P. M.---his pulſe 120---and weak---paſſed two large lumbrici---next morning found him more compoſed---gave him a cup of wine, and ordered him another at one o'clock.

The opiate was intermitted this night, and till next evening, when he got 105 drops.--- This was coming ſomething nearer to the *new practice* of Dr. Brown, though ſtill much ſhort of it.---For from the little ſucceſs it had hitherto afforded, I was afraid to proceed as far as this publication ſet forth.---The delirium had never abated.---From this till next evening he got no more, when 110 drops were adminiſtered---with no better ſucceſs than before. ---The day following I thought him better, though his pulſe was weak, and frequent.--- Sometime after it was no leſs than 130.--- He was ordered wine and beef tea this day--- but in the evening he died without a ſtruggle.

This, I am led to believe, will be allowed a pretty fair trial of the *diffuſible ſtimuli* applied in caſe of Typhus. But whoever will take the trouble to examine it, will find no great encouragement to repeat the experiment. For my own part, I am inclined to think, I never ſhall make another on the ſame principles. Here, evidently, no advantage was obtained; nay, I am led to believe it was hurtful, though I dare not ſay the caſe would have proved more ſucceſsful, if it had been treated on a different plan.

Perhaps, it will be ſaid, I was too timorous, and did not venture on large enough doſes; it may alſo be objected, that I omitted the uſe of Tonics.---Such as the Cort. Peruv. &c. The reaſon was, I wiſhed to tread as nearly as I durſt in the footſteps of the father of this new doctrine, as ſet forth in ſome of the caſes, in the publication already quoted, by which it is endeavoured to be proved *the beſt practice yet found.* But I ſhall not take upon me either to condemn, or approve,---here is a caſe, I lay before the public, pretty exactly narrated.---It may, no doubt, take many more trials by different practitioners, to ſettle the merits or demerits of this ſyſtem.

Stork

Stork extolled Cicuta to a degree, not yet deſerved, according to experience in theſe countries.---But the many trials made after him, though it could not be concluded that the medicine deſerved all the praiſe he beſtowed, have confirmed it to be an uſeful article of the mat. med. and one, from which we may promiſe ourſelves advantage in various diſeaſes. The ſame concluſion, perhaps, may be drawn from this medicine in fevers; it may teach us a more liberal uſe of opiates, without going ſo far as this new doctrine points out.

Graham, the noted Quack taught us, that with ſafety, we might adminiſter Æther in much larger quantities than had ever been ventured on before; and the Suttons, by an extenſive practice, firſt brought the cool regimen in the inoculated ſmall pox into almoſt univerſal uſe. Though few of the Regulars ever adminiſter the former in ſuch quantities as Graham ſets forth he did; or purſue the ſtarving plan in the inoculation of the ſmall pox to the degree practiſed by the Suttons, ſeveral diſeaſes, no leſs fatal, having been the conſequence of it, yet both have been uſeful, eſpecially the latter; and with reſpect to the

Brunonian ſyſtem, perhaps the ſame inference may be drawn.

Let us, however, keep in mind the pilot's advice, and endeavour, by a middle courſe, to gain the wiſhed for harbour, ſince death may be as equally certain from the Rocks of Scylla, as from the Gulph of Charybdis.

Ne incidamus in Scyllam cupientes vitare Charybdin.

It is ten years and upwards ſince this practice came into uſe: ſoon after the publication of Dr. Brown's *elements* of Phyſic theſe doctrines were ſuddenly diffuſed throughout theſe iſlands by his pupils and other adherents, and rapidly gained ground, being carried to the patients bed-ſide by many who did not ſee the full extent of their meaning, and by others doubtleſs willing to give the faireſt trial to the opinions of this ingenious man, and the practice built upon them.—If many miſtakes have been committed thereby, and I fear many there were, we can only hope and plead as an apology that it was from a zealous wiſh to extend the ſcience of medicine that theſe trials were undertaken. The practice to its full extent is now loſing ground, for it has not been found, on a fair compariſon and inveſtigation, that more

more ſucceſs has ariſen from it than from thoſe methods that were in uſe before. The doctrines however havegiven riſe to other ingenious opinions, and new light would appear to be thrown upon the intricate ſubject of Phyſiology, a ſubject but yet in its infancy, to conduct the Philoſopher at leaſt one ſtep further in his reſearches—*Irritability* has now taken place of *Excitement*, and fevers are now treated on this foundation. Inſtead of wine, brandy, and opium, the exhibition of nitre, vegetable acids, and things of this nature abounding with Oxygene are ſtrongly recommended, and the greateſt ſucceſs, it is affirmed, has attended them. Dr. Wood, a phyſician of promiſing abilities, has lately laid before the public an eſſay on this ſubject, to which the reader is referred for further information. Various and diſcordant are the opinions on the ſubject of fevers, and men of the greateſt abilities have differed on it the moſt. Little ſeems ſettled as yet on the ſubject, which is a proof of the obſcurity in which it is involved. On a fair examination, we believe, as many caſes have ſucceeded on the plan laid down by one ſet of men, who thought it incumbent on them, by preconceived opinions,

to

to adminiſter opium, wine, bark and tonics; as from another ſet who had conceived it right to follow one totally different; but as the ſcience of medicine is daily extending her empire, and nature ſeems yielding herſelf to philoſophic ſcrutiny, this, as well as many other parts of medicine, will admit hereafter, I hope, of a truer deciſion.

In caſes of extreme debility and danger, we find Dr. Heyſham adminiſtering large doſes of opium from gutt. xl. to gutt. l. united with vol. alk *, as a more inſtantaneous and diffuſible ſtimulant, he ſays, than either brandy or wine, the former of which he gave in larger doſes than common, and the latter often to two bottles and an half in twenty-four hours, with the beſt effects. Many authors, from Sydenham to the preſent day, extol its uſe in fevers, but none that I have peruſed ever carried it to the length recom-

* His formula is as follows:
℞. Conf. Cardiac, gr, xv.—
Aq. Cinnam. ten. Semunc.
———— ſpirit dr. ij.
Sp. Lavend. compos. dr. j.—
T. Theb. gutt. xl. vel.—gutt. l.—
Vol. alk. gutt. xxv.—M. f. hauſt. h. S. Sumendus.

mended

mended by the author already mentioned, whoſe practice I attempted to repeat in the above caſe.

Profeſſor Cullen ſpeaks favourably of opium as a ſtimulus *, in fevers of the nervous kind, where the vis vitæ is apt to ſink. He believes, wine and opium act in ſome meaſure analogous to each other; and he thinks it uſeful, particularly in every caſe of delirium from irritation; but that in an inflammatory ſtate of the brain it is hurtful.

Doctor Campbell thinks it chiefly uſeful in the beginning of fevers. But he ſays, "I have been informed, from authority on which I repoſe the greateſt confidence, that the exhibition of opium in larger doſes in the more advanced periods, and more dangerous ſtates of the diſeaſe, has alſo been attended with happy effects.---To the amount of 120 drops at a doſe †. But having myſelf had no opportunity of ſeeing it ſucceſsfully given, under ſuch circumſtances, I ſhall decline ſpeaking upon that point."---As to its being a poiſon, he very properly adds, "I do not know that the ſmalleſt quantity capable of inducing

* Vid. Lect. on Mat. Med.

† Vid. Treat. on Typhus, p. 86.

death,

death, has been aſcertained by experiment, or the largeſt that may be taken with impunity. Much will depend on original idioſyncraſy, or peculiarity of conſtitution, which cannot always be known *a priori*; and upon the degree and nature of the morbid affection, at the period the opium is adminiſtered."---As one perſon will bear of ſpirituous liquors, or wine, without being affected, twice as much as others, ſo it is allowed to be the ſame with opium.---In caſes of mortification, in ſevere pain, locked jaw, or Tetanus, it may be given in ſuch large doſes, with advantage, as might poiſon a perſon in health.

Doleus tells us of a caſe, where only a ſcruple of Op. given in clyſter for a complaint in the bowels, brought on apoplexy and death *; and a poor woman, Dr. Campbell tells us, in his neighbourhood, in a conſumption, took two drams of T. Op. by miſtake, at once, when comatoſe ſymptoms enſued, which terminated fatally in twenty-four hours.---The ſame author ſays,---" but even in ſtates of diſeaſe, where Op. is manifeſtly proper, an over doſe may be attended with the ſame bad conſequences as in other ſituations.---I have an

* Vid. Encyclopædia, p. 322.

unfor-

unfortunate caſe in my eye, where an attempt was made to cure a violent convulſive diſorder by means of opium."

" The patient was a robuſt man, who was affected with ſevere and frequent twitchings: one day he took two grains of ſolid Op. which was repeated at the interval of two hours, and again at the end of other two hours, without any ſenſible effects. Six grains having produced no alteration when taken in this way, he took three grains the day following, at a doſe, and three more at the diſtance of an hour, without any perceptible conſequences. The ſucceeding day, the ſpaſms being more violent than ever, he took thirteen grains of the ſame medicine in the courſe of five hours, without the leaſt effect on his convulſions; nor did this quantity produce either ſleep, delirium, or thirſt.

" He was then ordered to take gutt. lx. of liquid laud. which was repeated four times at the interval of an hour between each doſe. This had no ſenſible effect in diminiſhing the ſpaſms, or affecting him in any other manner. The next day the doſe was augmented to gutt. lxxx.---and repeated four times at the ſame intervals. He ſlept about an hour after taking the four doſes of laudanum, and then awoke,

awoke, ſeemingly, in his uſual ſtate of health, the Op. having had no effect on his convulſions. He went to bed about ten o'clock; at twelve, the nurſe obſerved he was in a very profound ſleep, but did not attempt to awaken him; at ſix in the morning ſhe found him ſtill in the ſame ſtate as before, and endeavouring to rouſe him, found it impoſſible; every method was uſed for that purpoſe that could be thought of, but in vain; he died about eight o'clock that morning.

On diſſection, an *Echimoſis* was found in his ſtomach; no other morbid appearance in the alimentary canal, nor in the brain.

" Here," he goes on, " thirteen grains of Op. were given in the courſe of a few hours, without any bad conſequences. At another time 240 drops of Laud. which are equal to about nine grains and an half of Op. alſo without any ſenſible effects; but, when on the ſucceeding day, the doſe was increaſed to 320 drops of Laud. which is equal to thirteen grains of Op. (a quantity that he had taken before in a ſolid form, with impunity) fatal conſequences ſeemed to follow the exhibition of the medicine; it muſt not, however, be ſuppreſſed, that a pint bottle was found in his

bed, which contained ſome whiſky, and of which it is ſuppoſed he had drank."

The moſt that I find Dr. Campbell adminiſter, was gutt. lx.---on ſome occaſions, he found it neceſſary to add twenty or thirty more in two hours after---before he found it followed with reſt.

Doctor Martin Wall ſpeaks much in praiſe of opium alſo---yet I do not find he ever ventured to purſue it to any thing like the length the *new doctrine* ſets forth. A medical practitioner, about twelve miles from this place*, converſing lately with me on the ſubject, told me very freely, he had tried opium in this way, and was inclined to think he did hurt by it; the quantity given, he did not mention; and from my own experience in many trials, in ſmaller doſes; ſuch as from half a grain to a grain and half, in fevers, though it was often beneficial, and highly neceſſary, yet it was by no means univerſally followed with good effects in all caſes. I have found ſeveral in which it rendered the patient reſtleſs, inſtead of producing ſleep,--- and thirſty, and vapoured, who had better nights on leaving it off, than when they uſed it.

* Ipſwich.

A much

A much ſimpler method of proceeding was ſucceſsful, lately in Edinburgh.---Out of one hundred and thirty children, in one of the charity hoſpitals in that city, eighty-five were ſeized with this fever; they were under the medical care of Mr. Kerr;---the firſt thing given was an emetic, and as ſoon as poſſible after being ſeized;---the ſucceeding treatment conſiſted in *cleanlineſs*---the greateſt attention being paid to it in all its varieties; freſh air, the apartments being almoſt conſtantly ventilated---belly kept open by ſimple laxative injections----diluents copiouſly employed, and ſometimes acidulated. By this ſimple method, not one of the whole number died; yet ſeveral had alarming ſymptoms----petechiæ, vibices, and hæmorrhages. The matron of the hoſpital was ſeized with the fever; ſhe took an emetic as ſoon as ſhe found herſelf ill,---and without any thing more, that may be called medicine, ſhe alſo recovered in a ſhort time. From whence it would appear, as the Editor ſays, and to which I am inclined to ſubſcribe *, "that in the treatment of fevers, practitioners are as often apt to err by *doing too much*, as by *doing too little*."

* Vid. Med. Comment. D. 2. v. 1.

That

The pulſe was very ſlow, in the caſe, on which I made my experiment; and this is no uncommon thing in theſe fevers. Dr. Campbell had one caſe where the patient died, covered with petechiæ, whoſe pulſe never roſe above ſixty-ſix ſtrokes in a minute.---A ſecond, who alſo died, where, till the day preceding her death, it never exceeded ſeventy-ſeven ſtrokes in the ſame ſpace;---and a third, whoſe pulſe beat no more than ſixty-eight in a minute---but in others, again, it is very greatly accelerated.----Pulſus, parvus, debilis, plerumque *frequens* are the words of Dr. Cullen, in his definition of the diſeaſe.---Nor is the heat of the ſkin always increaſed. Calor parum *auctus*----as the ſame Noſologiſt expreſſes it,---but the ſenſorii functiones *plurimum* turbatæ; and the vires *multum* imminutæ, are ſeldom found wanting.

To ſum up the whole; though I dare not ſubſcribe implicitly to the doctrine laid down, by ſuch as extoll very large doſes of this medicine, in febrile complaints; yet, if uſed with caution and proper circumſpection, a due regard being had to the particular conſtitution of the patient in bearing its uſe, much advantage may reaſonably be expected from opium;

and we may likewiſe juſtly ſay of it, as the great Sydenham did, that, ſine illo, manca ſit, & claudicet medicina."

With reſpect to making experiments on the living ſubject, it may not, at all times, be expedient to diſcover our intention. There are few, who have not an averſion to become the ſubject of experiment, even though attended with the utmoſt ſafety and innocence; nor are we to ſatisfy, at the expence of much uneaſineſs, perhaps pain and danger, fooliſh curioſity, where no inferences uſeful to ſcience can be drawn from it.

I remember, many years ago, a practitioner, who adminiſtered to a patient no leſs than twelve grains of T. Emetic *, merely to ſee what effect this *double doſe*, as he termed it, would have. The conſequence, as might be expected, proved very nearly fatal; for the patient was thereby thrown into violent convulſions; his hams drawn up with violent ſpaſms, and his life for ſeveral days, rendered extremely doubtful. The ſtory made ſome noiſe in the neighbourhood, and the blame was laid on a young man, then his aſſiſtant in the ſhop; but it muſt not be hid, that he was

* Antimon. Tartaniſat.

generous

generous enough, afterwards, to remove the ſtigma from the innocent, where he ſaw it ſo unjuſtly placed, by avowing the fact.

We come now to hazard our opinion, with regard to the exhibition of *doubtful medicines*. It has been long laid down as a medical maxim,---Melius anceps quam nullum uti remidium,---or, that it is better to have recourſe to a *doubtful remedy*, than to none.---But, perhaps, objections may be raiſed to the application of this precept in its utmoſt extent; becauſe to adhere to it, and act innocently, in our practice, on all occaſions, will require no ſmall ſhare of ſagacity.

If we are determined, however, to apply this *anceps remedium*, it ſhould, in my opinion, certainly be ſuch, as is calculated, if it does *no good*, to do *no harm*; and yet, if we have any hopes from its uſe, they muſt be founded on *certain qualities*, perhaps *active qualities*, we know it to poſſeſs, and a compariſon of theſe, with ſome *probable* or *certain* ſtate of the organs of the body, on which it is to have ſalutary effects.

In *doubtful caſes*, without acting in this circumſpect manner, we act *raſhly*; yet to reaſon thus by induction, though it be uſeful,

can only lead to a degree of knowledge, and not to certainty; but it is a clue notwithſtanding, that may be allowed occaſionally to guide us; a taper that *may* lead from a *doubtful* into a more direct, and certain path.—" Probabilities," ſays an author lately quoted, " are not to be deſpiſed, if they are drawn from experienced facts, to which we are led by the ſenſes; becauſe they are then to be eſtabliſhed as ſo many fundamental propoſitions. A medicine which has often been uſeful in a caſe, and in circumſtances ſimilar to theſe of the caſe before us, will *probably* be uſeful in this, but if I have not ſeen it tried in theſe caſes, my conjecture will be mere *chimera*. We ought, therefore, on ſuch occaſions, to reaſon only from experience."

If we have recourſe to dangerous remedies, merely to learn their effects in caſes, where the patient, *in our opinion*, is paſt hopes of recovery, ſo that ſhould the worſt happen, we ſhall think ourſelves free from blame, we may err; for this muſt be founded in the truth of our prognoſtic. That the wiſeſt are frequently deceived in theſe, is well known. This has, and may happen agreeably, ſometimes, contrary to our *prognoſtic*; and this in-

certitude, ſhould ever make us cautious in the exhibition of dangerous medicines, from an idea, that death appears inevitably approaching, and muſt take place.

We commune with ourſelves, perhaps, in this manner.—" It is in vain to be any longer ſolicitous reſpecting the fate of the patient; my ſkill, in medical ſcience, can prove of no uſe in his caſe; yet I have heard of certain complaints, ſeemingly ſimilar, where a certain medicine, when every thing elſe had failed, was ſucceſsfully exhibited. As all hopes are here at an end, I can have little heſitation of trying it; yet I am perfectly convinced of its doubtful, as well as dangerous effects. I know it may do miſchief; yet it may *chance* to do good here as in other caſes where it proved ſalutary; let things fall out as they may, ſince every other medicine I can think of has failed, where can be the harm of riſquing a trial? No one can blame me for killing a dying man." Such reaſoning, it is to be ſuppoſed, as this, before the qualities of James's powders, and their effects were fully diſcovered, was often uſed. They were often given as the laſt refuge in caſes of fever; and as often, not only at improper periods, in the

exhauſted ſtate of the patient's ſtrength, when the diſeaſe had ſpun out to ſeveral weeks, but in improper doſes; the conſequence was, they killed many, though they cured ſome. The caſes that terminated happily were publicly mentioned, while thoſe that ended fatally, were looked upon to be occaſioned not by the medicine, but by the diſeaſe. Theſe abuſes, ſince the compoſition, and qualities of this medicine have been better underſtood, are now corrected; perhaps much more good, and certainly leſs miſchief reſults at preſent from their exhibition in the hands of judicious men than formerly.

With reſpect to the above reaſoning it is ſpecious; but I think it in ſome meaſure wrong: firſt, becauſe the prognoſtic we have made, may be ill-founded; for while life remains, there always remains ſome room for hope, becauſe many of the operations of nature lie ſo far beyond our reach, that even the greateſt penetration cannot fathom them. What then can common abilities, and ſuperficial obſervation avail? We know from the experience of ages, that the efforts of nature, which in the end turn out ſalutary, appear dangerous in the eyes even of the wiſe; and in reality they

they are ſo; ſince it is frequently found neceſſary to attempt to moderate them.

If on occaſions of this kind, a leſs attentive obſerver, or a practitioner of leſs experience, from too haſty concluſions, gives up his patient, he acts worſe than a coward; at leaſt he diſcovers a degree of timidity allied to ignorance. And ſhould he now raſhly, and without the advice of other medical men, and the concurrence of the patient's friends, if theſe can be obtained, adminiſter a medicine of the nature of which he is altogether unacquainted, or, of which, from probable reaſoning, he cannot conclude favourably, he is wrong, and ſhould beware of the conſequences.

In ſituations of this ſort, I ſhould eſteem it both more ſafe, and not leſs conſcientious, to truſt the caſe, in a great meaſure, to nature alone, than to make hazardous attempts. Let our care now be directed to what are called the *non-naturals*; to ſleep; urine; ſtools; food; drink; perſpiration, &c. and ſuffer nature to perform the reſt. I can eaſily conceive more danger from being too *buſy* with medicines of the more active kind, than from none at all; and, as has been ſaid on another

occaſion, it is ſafer to do too little, than too much.

" The particular nature of diſeaſes is frequently ſo obſcure, that the utmoſt ſagacity cannot diſcover it; and, in ſuch caſes, it is evident, that it is at leaſt an even chance that medicines of any power may injure rather than benefit the patient; in ſuch a ſtate of uncertainty, it will certainly be prudent to give, in the form of medicine, what cannot produce any eſſential change; and in the mean time remark very accurately, the effects of diet, which will often afford the ſafeſt clue to the *general* nature of the diſeaſe; and which being aſcertained, we ſhall have advanced one ſtep nearer to a knowledge of its particular nature *."

But while we advance this opinion, it is not meant to inculcate indolence, or inactivity, or to deter from rational experiment; the laſt I would encourage.

We have the example of eminent men, both in and out of the army to follow here. It was in the army Sir John Pringle, Profeſſor Home, Dr. Brockleſby, with many others,

* Med. Cautions, Ed. 2d. p. 305.

made

made uſeful experiments, and laid the foundation of a practice which ſtill continues.

It is, however, in ſuch ſtates of uncertainty, as already deſcribed, that it behoveth us to call others to our aid. Some others of the faculty ſhould be now conſulted; it will be for the attending practitioner's credit to do this: it is preferable to the precipitate uſe of this *doubtful* and dangerous remedy. Our prognoſtic, though formed with every poſſible care on our part, may be erroneous, and we ſhould act with caution.

"It is a curious fact," ſays Dr. Adair*, "that "though it might be reaſonably expected, that conſiderable injuries of the brain muſt always be followed by great weakneſs, or total abolition of ſenſe or motion: yet in ſome caſes neither has been affected, and the patients have ſurvived after wounds and impoſthumations of this delicate organ, and in one inſtance after half of the brain was deſtroyed.—A caution againſt *precipitate prognoſtic* even in the worſt poſſible caſes."

As an inſtance of the little reliance, ſometimes to be placed in prognoſtic, and to point

* Philoſ. and Med. Sketch of the Nat. Hiſt. of the Human Body and Mind, p. 25.

out their fallacy, we may mention one in the caſe of the once celebrated Mr. Pultney, as related by Biſhop Newton. "This gentleman," the Right Rev. Prelate tells us, "once lay ill of a pleuritic fever at Lord Chetwynd's, in Ingeſtree, in Staffordſhire. He was attended by Drs. Hope, Swynden, and other phyſicians, from Staffordſhire, Litchfield, and Derby; by Dr. Friend, from London, and Dr. Broxholme, from Oxford.

"Theſe two laſt mentioned gave him over on their arrival, finding, as they thought, the caſe deſperate; he was ſtill alive, and was heard to mutter in a low voice *ſmall beer! ſmall beer!* They deſired that this or anything elſe might be given him. Accordingly, a great ſilver cup was brought, which contained two quarts of ſmall beer; they ordered an orange to be ſqueezed into it, and gave it to him; he drank the whole at a draught, and called for another; another was given him; and ſoon after drinking that, he fell into a ſleep, and a moſt profuſe ſweat, for near twenty-four hours. From that time he recovered, and ſo ſpeedy was his recovery, that in a few days his phyſician thought it unneceſſary to attend him longer *."

* Biſhop Newton's Works.

I ſhall

I ſhall now venture to relate a caſe wherein I was agreeably diſappointed in my prognoſtic, in the ſpring of 1782; though I thought myſelf ſufficiently warranted, from the ſymptoms, to pronounce then as I did. The patient was in the ſeventeenth or eighteenth day of a Typhus, as far as I could learn, for it is difficult to find the exact commencement of theſe fevers, as we are neither called early, nor can the patient be diſtinct in his account; every attention in my power was paid from my firſt viſit; all the ſymptoms carefully noted, and the changes that took place as diligently watched; the bark had been adminiſtered, and likewiſe wine in good quantity, more than commonly falls to the ſhare of regimental patients. I had likewiſe tried calomel joined with camphor, in the manner preſcribed by Lyſon in fevers; with many other remedies, all with a view to raiſe the vis vitæ. My patient's ſtrength was hourly ſinking, and for two days his life appeared doubtful; but I had as yet been cautious in publicly giving my opinion of the event, though often interrogated on this point, a precaution which every medical man ſhould uſe. In the evening I viſited him,

and

and things appeared much againſt him; yet I ſtill heſitated in declaring my opinion. Next morning I viſited again, but on entering his room, there was ſo evident a change for the worſe, that my heſitation was now at an end; the event appeared too plain, I thought, to be concealed even from the by-ſtanders. The report I received of his night's reſt, and above all, the appearance of his look prognoſticated a ſpeedy diſſolution; his countenance was ſunk, and death already ſeemed to ſit on each eye-lid; the corners of his mouth were fallen, a ſymptom I had often noted to portend ſpeedy death; his urine and excrement paſſed involuntarily; he had a ſubſultus tendinum; his pulſe ſo feeble and weak as ſcarcely to be felt, and a conſtant picking at the bed-clothes. I forbore now to preſcribe, and only admoniſhed the orderly (this happened in a billet) to give him now and then a little drink; I left the houſe, therefore, with orders to let me know the time of his death, for I had no doubt remaining reſpecting it. Having heard nothing more of him, I viſited next morning, and, to my agreeable ſurpriſe, found every deadly ſymptom changed

for

for the contrary; he was ſitting up in bed, and the orderly feeding him with panada.

The unfavourable appearances continued, they told me, for ſome hours, while they expected every deep ſigh he fetched would be his laſt; but he ſunk, after this great ſtruggle, into a profound ſleep of ſeven hours, and awoke, refreſhed, ſenſible, and changed in the manner I ſaw him. He ſoon recovered, ſo well, as to render my attention needleſs; but I freely confeſs, I was more obliged to nature for her timely interference, than to any thing I was able to do for the patient. I doubt not but many others have been ſimilarly circumſtanced; and hence it is, that prognoſtics, in my opinion, ſhould be made with caution, and relied on with doubt.

Another example tending to the ſame purpoſe may be here adduced: a Quarter-maſter in a regiment of Dragoons fell ill; he was a valuable man in the regiment, and much anxiety was expreſſed by the officers for his recovery. The fever ran very high, and every day portended more and more danger. My advice had been requeſted, for it happened ſince I ſettled in this place, and I laboured with all my might, in conjunction with

with the ſurgeon of the regiment, to ſave his life. Death, however, appeared to us inevitable; and although I had been much converſant with diſeaſe, and had been preſent at the diſſolution of many, I never ſaw any caſe wherein I thought it might be pronounced with more certainty. The Commanding Officer was therefore made acquainted with our opinion; and, from his regard for the man and his family, who by his death would be deprived of the means of ſubſiſtence, an expreſs was ſent by him to the Colonel of the regiment for leave to diſpoſe of his warrant while he yet lived, which could not be done after his death. By a little manœuvre, known in the ſervice and practiſed on ſimilar occaſions, it was diſpoſed of to a ſerjeant in the ſame troop, that the purchaſe-money might be ſaved for the widow's uſe. The tranſaction was completed, and the new Quarter-maſter ready to enter upon his office, when things began to take a more favourable turn. A bolus had been adminiſtered the preceding evening, after the effects of which the amendment took place. His recovery was now rapid; and, to the joy of his wife, and the ſatisfaction of the Commanding

Officer, he was ſoon pronounced out of danger, and regained, after ſome weeks, perfect health and ſtrength.

" A Phyſician," ſays Zimmerman, " who goes ſo far as to predict what is to happen, can, on many occaſions, ſay only, that it is *probable* ſuch an event will take place; ſometimes, however, it is impoſſible to foreſee this *probability*. The probability of a prediction is founded on the effects that have been obſerved in ſimilar caſes; theſe effects are, therefore, to regulate the conduct of the obſerver."

Hippocrates himſelf was aware of the great difficulty of forming a probable prognoſtic; and though he had all the obſervations made by the family of Eſculapius to aſſiſt him, he readily acknowledged it, and does not heſitate to declare, that it is very eaſy to be deceived. " The prognoſtic, in acute diſeaſes," ſays he, " is *uncertain*, and it is impoſſible to ſay *in-* " *fallibly*, whether the diſorder will terminate " in death or in recovery."

CHAPTER XIV.

THE NECESSARY QUALIFICATIONS OF THE SURGEON'S MATE.

EVERY regiment has a Surgeon's Mate, or an Aſſiſtant Surgeon, whoſe duty is the ſame with that of the Surgeon. It frequently happens that the whole buſineſs devolves upon him, the Surgeon making only occaſional viſits to the ſick; it would appear from hence, that his qualifications in medicine ought to be equal. The military laws, however, place him in ſubordination to the Surgeon.

If the regiment be ſeparated into different diviſions, and placed in ſcattered quarters; the mate is ſet over ſome of theſe, while the Surgeon remains at head-quarters, a compliment paid to him, and ſuperintends the party that remains there, and near at hand. As the Surgeon receives the medicine-money, he is to ſupply the Mate with every article he ſtands in need of in this way.

It is clear from hence, that if he is not regularly ſupplied with medicines, his viſits and preſcription can anſwer little purpoſe to the afflicted whom he is to attend. Deficiencies have

have been obſerved in this point; it is then the Mate will find his ſituation aukward, if he has any regard for the welfare of the men; for the general rule with many regimental Surgeons is, to ſave as much from the money allotted for medicines as they can, ſince their perquiſites muſt be in proportion. Yet, as we have already ſaid, the fault is not altogether to be placed to their account, but to the bad eſtabliſhment that limits their pay to a ſum inadequate to their neceſſary expences.

This, however, not only injures the men, but often gives riſe to diſcontent and animoſity between the Surgeon and the Mate. For if the latter is active in diſcharging his duty, the former never fails to *admoniſh* him to beware of expence in medicines. If the Mate be poſſeſſed of any medical diſcernment, this cuts off all opportunities of diſplaying it. Though we ſaid above, that the qualifications of both ought to be equal, yet under this reſtraint, it becomes a matter of little moment how he is qualified; for ſhould the firſt profeſſor, in the moſt celebrated univerſity, be placed in ſuch a ſituation, ſurely his knowledge would be of little avail; ſince, under

 theſe

theſe circumſtances, it is out of his power to execute what his diſcernment dictates.

An architect may plan a building with every degree of judgment and taſte, but if he is deprived of workmen to execute his deſign, the ſtructure can never be raiſed. It is altogether the ſame in medicine, ſhould the preſcriber be with-held from the means of compoſing his preſcriptions: if Mates, under theſe circumſtances, poſſeſs any medical knowledge, they become diſguſted, and lament the unfortunate and *ignoble* ſtation they hold, which prevents them from being of that uſe to their patients, which they otherwiſe might prove; if this, with other things, does not determine many to quit a ſervice they cannot remain in with honour or ſatisfaction, they become careleſs and indolent; and obſerving that their greateſt efforts to merit attention, and their moſt diligent application to their profeſſion, can neither attract reſpect nor notice, they no longer take pains to obtain it; their ardor by this behaviour cools, and they now become as indifferent to what happens in the line of regimental practice, as they obſerve their predeceſſors have been, till by degrees this indifference ſettles into a habit; and

they loſe all reliſh whatever for the profeſſion, finding the labours requiſite for it ſo ill rewarded.

Although it would appear from the foregoing, that almoſt any perſon may be a Surgeon's Mate, yet it were better, that care was paid to their choice, ſince every one, who is Mate, may in time, by intereſt, or ſome lucky chance, be Surgeon; for admitting, little now be in their power, yet when they commence Surgeons, their authority commences with the ſtation. But will they be fit for the duty they muſt now undertake? It is not to be expected, that the improvements they have gained under ſuch reſtrictions as we have pointed out, can have added much to their experience, ſhould they have been Mates even for twenty years; and if they entered novices, inſignificant viſits to the ſick, where they neither did, nor obſerved any thing material, and the wearing a cockade a number of years, can ſurely add but little to the general ſtock of their knowledge; for it is not to be ſuppoſed that knowledge will come intuitively, or be like their pay, the conſequence of their promotion. However juſt the poet's opi-

nion may be in many things, when he ſays,

" A buſineſs with an income at its heels
" Furniſhes always oil for its own wheels*."

it cannot ſurely be admitted in caſes of this nature, if by oil, he means capacity for buſineſs. The parchment on which their commiſſions are written, cannot convey medical ſkill, or teach them how to make obſervations. Accurate obſervations ſo neceſſary to be made in phyſic, are not to be expected from ſuch men.

The learned Zimmerman ſays, " to *ſee*, is not to *obſerve*; and the hoary veteran, who has looked for ages on the complicated ills to which human nature is ſubject, may at laſt be uninformed, and unworthy of confidence. But the world thinks differently. With it, to be young, is to be *ignorant*; and to be old, *ſagacious*.

" Judgment is ſtill more rare; it unfortunately requires erudition, reflection, and attention; it is not attained in the ſplendid circles of gaiety and diſſipation; it is not the attendant of the coffee-houſe, or tea-table;"

* Vid. Cowper's Poems. Vol. I. p. 289.

---But

---But ſuch is the life too often of Surgeons and Mates, becauſe ſuch is the life of the army. The manners and cuſtoms in uſe there, rendering it almoſt unavoidable ;---nay, ſuch is the conduct, too often, of medical men out of the army. He proceeds farther in his obſervations on this ſubject, which though they be applied to *Phyſicians* in general, will, we think, equally apply here---" theſe, however, are the ſchools of modern improvement ; and while the young Phyſician aims at being agreeable, he loſes the opportunity of becoming uſeful. In this caſe, mankind combine againſt themſelves ; the Phyſician acts only on the defenſive."

Galen complains feelingly of many practitioners of his day, who were not aſhamed to attend in the morning at the toilet, and make their court to the ladies, and at night to be of the moſt ſumptuous parties ; in this manner, by modelling themſelves to every faſhion, they aimed at eſtabliſhing a reputation ; and this is the reaſon, ſays this reſpectable man, why the fine arts, and philoſophy, are conſidered as very uſeleſs branches of a Phyſician's knowledge. " Ought we then to be ſurprized," to uſe the words of Zimmerman,

" that ignorant mechanics ſhould quit their trades for the ſake of practiſing phyſic; or that perſons, who have learned only the art of preparing medicines, ſhould have the boldneſs to conſider themſelves as phyſicians, and undertake the treatment of diſeaſes?"---Pliny has very well obſerved, that he who has *impudence* may very well paſs for a Phyſician---and the obſervation, though ſome centuries old, is ſufficiently applicable at the preſent day; the conduct of our modern Empyrics will confirm it; and ſince I have touched on the ſubject, give me leave, though it may ſeem a little out of place, juſt to add the ſentiments of this author, relative to the tolerating quacks.---After inveighing againſt them in pointed terms, he adds, " Is it not ſtrange that the *State* ſhould ſuffer this deſtructive breed;---ſurely the people, blind and ignorant as they are, ought not to be abandoned to the prey of theſe *impudent* and *dangerous* men. If ſociety claims a right to oppoſe the deſigns of any individual, who wiſhes to render himſelf unhappy, why ſhould not he preſerve the ſame privilege, when the ſafety of a great number of her members becomes concerned? If ſociety has ſuch a right, ſhe is ſurely blameable

blameable for not exerciſing it. The Sovereign will always be diſpoſed to incline a favourable ear to repreſentations which may be made to him on the ſubject. The Colleges of Phyſicians ought therefore to unite in the reformation of theſe abuſes."

With reſpect to want of erudition, he delivers his opinion in the following words :— " The views of the inattentive practitioner are vague and uncertain, but the reſults of attentive obſervation, founded on a knowledge of human nature, with a juſt degree of erudition, are very different. Theſe lead to uſeful concluſions : the others are like caſtles in the air, they vaniſh into nothing*."

Many, likewiſe, of the regimental practitioners, both Surgeons and Mates, remain almoſt totally ignorant of what is paſſing in the medical world ; their acquaintance and connections in it being either none, or very few. Their want of books contributes to this ; for granting they have a taſte for peruſing them, they ſeldom poſſeſs any. " He who never reads," ſays the ſame author already quoted, " ſees in the world only him-

* Vid. Treatiſe on Experience in Medicine.

ſelf; he has no idea of what has been thought by others; he conſiders all his own reflections, as of the greateſt importance."---All theſe things conſpire to with-hold them from improvement, and cut off their communication with men of letters; but we have touched on this ſubject in a former chapter.

Though this complaint againſt regimental practice, may have, in ſome degree, ceaſed within theſe laſt twenty years; and though many may be now found in both capacities of Surgeon and Mate, whoſe abilities *ought* to command reſpect; yet we may venture to ſay, without over-ſtepping truth, that ſeveral have found their way into it who deſerve all the ſeverity of this remark. Nor can much amendment be expected, till better regulations take place here, which I apprehend is not to be done without holding forth proper encouragement to men of regular education, to induce them firſt to enter into, and then to continue in the ſervice.

Durſt I venture to propoſe any plan, it would be ſomething to the following purpoſe; that Surgeons Mates, if they continued in the army, ought, previous to admiſſion, to be ſtrictly examined at Surgeon's

Hall,

Hall, reſpecting their knowledge in ſurgery; and afterwards by a Committee of Phyſicians, appointed for that purpoſe, relative to their abilities in what is more properly called Practical Medicine; and to the privileges of undergoing theſe trials they ought not to be admitted, till after a certain number of years ſpent at a Medical Univerſity, or ſome other reputable Medical School, from which they are to produce certificates of their attendance, in the ſame manner as a Candidate for a degree in medicine, before his admiſſion to examinations.

Brockleſby, who is well acquainted with army practice, is confident, "That all future "examinations of perſons employed as Mates, "or practitioners, in the army, ſhould be "ſolely ſubmitted to ſome one of the Cenſors "of the College of Phyſicians, together with "any one of the army Phyſicians, conjointly, "who know the requiſites for the poſt, for "which they ſtand candidates."

To alter the mode of examination at Surgeon's-Hall, he thinks, is indiſpenſibly neceſſary for the benefit of the public ſervice. Though he has laid this before the public, ſo long ago as upwards of twenty years, in which

which time we have ſtruggled with another long war, and are at preſent engaged in a ſecond, things remain in this department juſt as they were, without one ſtep of improvement attained. It is not to be expected that regulations of this nature can be attended to in time of war, when the public attention is drawn forcibly to different points. In ſuch times even the progreſs of the arts is ſtopped; in times of peace we may be led to expect more; errors might then be rectified, and regulations formed to prevent them in future. There are few departments in the ſtate where they are more wanted than in the medical; and in time of war few departments on which the ſucceſs of our armies may more depend.

Something like the plan propoſed above is followed in paſſing medical practitioners for the navy; after they paſs an examination at Surgeons'-Hall, they are ſent to a Phyſician appointed for this end, to be examined in medicine. When it is conſidered how much regimental practice partakes of the Phyſician's province, the propriety of this will appear evident. Brockleſby ſays, touching on this ſubject, in his œconomical obſervations, "I cannot

cannot admit that any one of the beſt of them, (Surgeons) although their knowledge may be ſufficient in their own profeſſion, or even any Court of examining Surgeons, at the Hall, are competent judges of medical ſubjects, ſufficient to aſcertain what are the requiſite phyſical qualifications of men who preſume to ſuperintend the lives and health of nine hundred ſoldiers*."---This, it ſeems, was the compliment of a regiment when he practiſed in the army.

It muſt be admitted, however, that medical education at the time this author made the above remark, was conſiderably more defective than it is at preſent, and it is hoped it can apply in its full extent to few now in the ſervice; notwithſtanding this we ſtill fear that it holds good in ſome meaſure from the eaſe with which admiſſion into this department of the army is obtained, and from intereſt united to careleſs and ſuperficial examination.

In giving ſuch certificates, private teachers for their own ſakes ſhould be cautious; they ought not to be allowed where the requiſites are wanting: ſome grant theſe with too great

* Vid. Œcon. Obſ. &c. 1764.

facility;

facility; they have been given where the bearer's attendance was neither regular nor conſtant, and without any examination whatever. They have been found, however, to anſwer the purpoſe equally as well as an univerſity diploma, or certificates from Surgeons'-Hall.

For the better encouragement of men liberally educated, more pay ſhould be allowed. May we not, with propriety aſk, who would give himſelf the trouble, and run into the expence neceſſary for ſuch an education, for the poor pittance of three ſhillings a day? To live on this ſmall ſtipend, when their neceſſary expences are conſidered, is barely to exiſt.

	l.	*s.*	*d.*
Mate's full pay, at 3s. 6d. a day *, for 365 days, is	63	17	6

	l.	*s.*	*d.*
Subſiſtence iſſued at 3s. per day, is	54	15	0
Poundage ſtopped by government, 1s. per £. is — —	3	3	10½
Chelſea Hoſpital, one day's full pay, is — —	0	3	6
Warrants and contingencies, two days pay, is — —	0	7	0
Agency, 2d. per £. is	0	10	7½
	59	0	0
Remains of 365 days, or one year's arrears at 6d. per day, is	4	17	6
	63	17	6

* A Surgeon's pay is 4s.

Or,

Or, he loſes of his full pay, every year, no leſs than 4l. 5s. 6d.—while the annual arrears, or neat clearings, viz. 4l. 17s. 6d. are ſo irregularly paid, that it may be ſaid, likewiſe, to be almoſt loſt. The warrant and contingencies are an impoſition of the agents, or their clerks; government never conſented to them—an order has been lately made to prevent their being exacted, but it has not yet been enforced.

Another part of the regulations that might be found neceſſary is, that no ſubordination ſhould exiſt between the Surgeon and Mate. Subordination, here, is found to be productive of jealouſy, which if it does not injure the practice, at leaſt makes the parties unhappy. What could firſt induce government to inſtitute ſubordination between the Surgeon and his Mate, unleſs the latter was to be held in the light of an apprentice to the former? but we ſhall ſuppoſe him of equal qualifications; for if he is what he ought to be, he muſt poſſeſs equal medical knowledge. Is ſuch a perſon to be treated as an apprentice boy; and as it were implicitly obliged to obey the dictates of one only his equal in point of medical erudition? nay, he may be

far

far his ſuperior in this reſpect; for, though it has been mentioned as a doubt, whether many regularly educated, enter the regimental ſervice in the ſtation of either Surgeon or Mate; yet, there are, moſt certainly, ſome in both; but it does not always happen that two ſuch are appointed to the ſame regiment. Where the weaker, the leſs qualified, chances to command, it is always an injury to the ſervice, and a reproach on the ill-formed regulation.

Several young men, of good education, have entered as Mates, in the late war, and ſome from my own knowledge might be mentioned, in the preſent conteſt between this nation and France, both in the militia and marching regiments, through the laudable deſire of falling into immediate practice, and obtaining ſpeedy experience; moſt of them however have ſoon found themſelves diſappointed in a great meaſure, by means of this ſubordination. But it is the fault of the military laws that permit this, not the fault of the officers *.

Ought

* I could mention ſeveral of promiſing abilities that went into the army, in the late war, both regularly educated Phyſicians, and Surgeons. Of theſe, two Surgeons have been fortunate

Ought ſubordination to take place in the medical, becauſe it was found neceſſary in the other orders of the military? Is it not to be regretted then, that there are in the army men of education, yet the ſervice ſo little the better for them, and which always muſt be the caſe, as long as they have not the regulation of affairs. If regimental Surgeons ſet up for teachers, ſubordination is allowable. Boys may then be put under their tuition, as they are under that of other maſters, for a certain term, till they be ſuppoſed properly inſtructed in regimental practice.

But where they have already received a good education, is it treating them fair to ſet a maſter over them, for no purpoſe whatever, but that of humiliation? Surely it is humiliating enough, that their pay is leſs than the Surgeon's, who has been more for-

fortunate enough to get appointments, as regimental Surgeons. Of four others, all Phyſicians from the firſt Medical School in Europe, one only has the appointment of Surgeon. The others were, and are Mates, (1783.) It is not our buſineſs to ſay what are the abilities of thoſe under whom they act. Some of the above, finding themſelves miſtaken in the choice they made, ſoon retired from a ſervice they could not remain in with credit to themſelves, or uſefulneſs to their fellow creatures.

tunate,

tunate, without, perhaps, poſſeſſing more merit.

In hoſpitals, out of the army, where two or more medical practitioners are appointed conjointly, it is not with this invidious diſtinction. They are denominated *Colleagues*, and no ſubordination ſubſiſts between them *. They conſult together; they deliver their opinions freely, ſupported by reaſoning; and by this each is actuated. It is very different in the army, where a Mate *often* receives his *orders*, as a ſervant does from his maſter, or as a ſerjeant from his officer. There is no room for remonſtrance, if the Surgeon chuſes to inſiſt on it; he may even be compelled to do what his judgment points out to be wrong. Under theſe circumſtances, obſervation and judgment muſt yield to ſtupidity or raſhneſs. For it does not always happen that the other may be inclined to liſten to the reaſoning of his Mate, in matters wherein they differ in judgment.

* The term ſenior and junior Phyſicians, &c. to an hoſpital, does not imply that the one is obliged to obey the *orders* of the *other*, nor gives any other than mere nominal diſtinctions.

There

There is a ſort of pride, but it is of a very cenſurable kind, in inſiſting on our opinion, becauſe it is ſuch, when there are evident reaſons why it ſhould be yielded: but this is a fault too often found among all orders; and we may pretty nearly coincide with Pope, when he ſays, that,

" 'Tis with our judgments as our watches, none
" Go juſt alike, yet each believes his own."

but inſtead of this obſtinacy of opinion, where it unluckily happens, they ought to meet, conſult together, and reaſon on doubtful points, as is practiſed out of the army; this, however, can never happen with the ſame cheerfulneſs, where an equality does not exiſt. If complaiſance in a Surgeon, or perhaps ſenſe of his inferiority, bids him act towards the Mate otherwiſe, it is to be placed to his own benevolence of diſpoſition, and a wiſh for the welfare of the patients; but the laws of the army give him power to act very differently.

Mates labour under other hardſhips as well as theſe, which muſt ever prevent men of much knowledge from holding the office; *i. e.* the length of time they may remain in

this ſituation without farther promotion. Inſtances have occurred, where a man has been Surgeon's Mate in a marching regiment fifteen years; others ten; others eleven; and even then, when vacancies happened, they have found novices both in years and knowledge, ſet over their heads. This is bad, but it will ſtill appear worſe, when it is conſidered, that they may ſpend twice the number in it, and be at laſt diſmiſſed without any thing to ſupport them in their old age.

The caſe is different with the Surgeon; if his ſervice was even leſs than a year, nay, perhaps leſs than a week, provided the regiment he ſerved in be reduced, he is entitled to half pay *; the Mate is left to provide for himſelf or ſtarve. Would it not appear more equitable to place him on the ſame footing

* I ſpeak of the Regulars. Militia Surgeons receive no half pay—ſeveral inſtances of this kind occurred at the late reduction, on the cloſe of the war. I am happy to find an acquaintance, and worthy young man, among this fortunate number: though I have the mortification to find more than one, no leſs deſerving; nay, even Phyſicians, who ſerved moſt of the war, as Mates, diſmiſſed like private ſoldiers, without a penny; and the ſame would have been the caſe, had they ſerved in this ſtation the greater part of their lives. He is the only officer in the corps that is thus ill rewarded for his labours.

with the Surgeon, allowing him alſo half pay? When a private ſoldier ſerves twenty-three years he is entitled to his diſcharge, and is allowed a ſmall penſion. It ſeems but reaſonable that ſome proviſion ſhould be made for Surgeons Mates.

But though theſe inconveniences are great, they are not all they lie under; they are ſtill ſubject to a farther humiliating circumſtance, *i. e.* being liable to confinement in the ſame ignominious manner as a *private*, and this even at the pleaſure and caprice of the youngeſt Enſign of the corps. Let us now ſuppoſe an example, and obſerve how it appears: ſuppoſe then a man, ſuch as deſcribed above, reſpectable for his knowledge, perhaps venerable for his age, ſerving as Mate in the army: let us likewiſe ſuppoſe a boy, as frivolous as he is young, and as ignorant as he is frivolous, juſt taken from a writing ſchool, and entered into the ſervice; a trifling diſpute may ariſe between them; the Mate, without more ceremony, if he ſeems to reſent, is threatened with the *Black-Hole*; nay, he is in reality by the military laws, liable to be tried by a Court-martial, and flogged like one of the ſoldiers, under the idea of *inſolence to an*

officer; and this merely, becauſe his warrant, inſtead of being ſigned by a Commander in Chief, or Secretary at War, &c. like the Officers and Surgeons, is only granted him, and ſigned by the Colonel of the regiment.

It is true, this law is ſeldom put in execution; the gentlemen of the army are aſhamed of it; and I doubt not but he muſt be a great delinquent, whom they would ſuffer to be treated with ſuch ignominy; yet as the minds of men are variable, and as diſputes may take place, there is a *poſſibility* of its happening ſome time or other. I have heard it often mentioned in jeſt, which was ſtill reminding the Mate, of the law that hung *in terrorem* over him; and once I knew it threatened (not indeed executed) in good earneſt. A repeal of a law ſo unjuſt, ſo abſurd, ought ſurely without loſs of time, to take place.

It may be objected, that if the Mate's warrant was ſigned in like manner as the officers, it would infringe the privileges of the Colonel. I deny this; for the Colonel, as now, may have the nomination, (proper certificates of the candidates qualifications being produced) and may ſignify it to the War-office, or Commander in Chief. We have a ſimilar example in

in the appointment of the Adjutant: the Colonel has authority to appoint his Adjutant; but the commiſſion is ſigned by a ſuperior power.

By ſome ſuch means as theſe, regimental practice would become more reſpectable; and men of reputation would not, as now, think it beneath them to accept the office, either of Surgeon or Mate; nor would they leave it as ſoon as they underſtood the nature of ſuch ill contrived laws. The ſick ſoldier would be more advantageouſly attended, and the ſervice in general better conducted.

CHAPTER XV.

SURGEONS MATES UNNECESSARY; AND THE PROPRIETY OF AUGMENTING THE SURGEONS PAY.

THOUGH I have taken ſome notice of the qualifications neceſſary for Mates, and ſuch as they undoubtedly ought to poſſeſs, if they are continued in the army, yet I am perſuaded the office is ſuperfluous. It has already been ſhown, that a regiment of foot, of the late eſtabliſhment, when compleat, was only 746, non-commiſſioned officers included; and of theſe two companies, called additionals, are always on the recruiting ſervice; and never with the regiment either at home or abroad, and of courſe never in the number of the ſick. We have, likewiſe, pointed out the number of ſick that, at an average, may be expected to require daily aſſiſtance. We know that it is not the number, but the diſtance our patients are placed one from another, that conſtitutes the fatigue of the profeſſion.

Among the number of the ſick we always find men that, properly ſpeaking, have no right

right to be returned to the Surgeon. Parties are frequently ſent out on different *Commands*; ſome after deſerters, and ſome on other duty. On returning, they are generally put into the ſick liſt on account of bliſtered feet, or, perhaps, for the ſake of reſting a day or two; ſometimes they want ſhoes, or ſome other of their neceſſaries, and cannot appear on parade, nor be put on duty, and are always placed in the Surgeon's liſt; for they *muſt* be accounted for; and this ſeems the moſt convenient place for them in the daily returns made to the commanding officer.

Many alſo, of theſe called ſick, ail little or nothing; at leaſt, need very little medical attendance. Some are affected with chronic complaints, that only require occaſional viſits, and occaſional aſſiſtance; ſome with cut fingers, and others with blotches on their legs, preventing them from wearing their Long Gaters; nay, I have frequently ſeen the whole liſt not exceed twenty-ſix, and continue about this number for weeks, the above included, and this when the regiment was near 600 ſtrong *. During this time there was little need of any medical advice.

* In the year 1782-3—it continued ſo for ſome months.

We know that practitioners, who have the care of hoſpitals, out of the army, viſit daily far more than the number we have mentioned, beſides their attendance on a large private practice. Moſt of their patients require much attention; for few either come to hoſpitals, or employ Doctors out of the army, that do not really ſtand in need of their aſſiſtance. Why then is the regimental practitioner to labour leſs than the practitioner in common life? Let him only enjoy a proportionate compenſation, and he will ſeldom complain of any fatigue he may ſuſtain in the medical practice of a regiment. Let his life be only made comfortable, and the office he is engaged in more reſpectable, and he will ſeldom think the medical care of a regiment of ſix or ſeven hundred, nay of a thouſand men, too laborious *.

It may be objected, that the regiment is often cantoned, and ſeparated into different diviſions, which may make it not only very troubleſome, but even impoſſible for one perſon, daily, to viſit all the quarters. This is

* In the ſpring of 1782, moſt of the regiment were ill, at once, of the Influenza; but epidemics of this kind rarely happen.

true,

true, it will be next to impoſſible to viſit them ſeparated in this manner, but an eaſy method may be found; let ſome Surgeon in each town, where a diviſion or party is ſtationed, be applied to, and for the medicine money he will attend them during their reſidence. This is often done, as things now ſtand; why may it not be done, if the reformation hinted at here, ſhould ever be thought worthy of the notice of Government? It might be eaſily proved, that the ſoldiers, under ſuch medical people's care, would receive better attention when ſick; and more efficacious, at leaſt, more palatable medicines would be adminiſtered to them, than if under the care of a Mate, limited in his practice as already deſcribed.

A ſettled Surgeon deals largely in medicines; his practice obliges him to procure them both in abundance and variety; and his own reputation requires that they ſhould be of the beſt quality. He purchaſes them, likewiſe, at a cheaper market; hence he can afford a neat medicine to a ſoldier, perhaps cheaper than the regimental Surgeon can his coarſe ill-choſen drugs, bought from retailing druggiſts, or country apothecaries: it has

already

already been mentioned how far a good medicine, well prepared, exceeds in efficacy thoſe ill prepared; how much more palatable, on this account, their medicines may likewiſe be made; and it is well known, how neceſſary even an agreeable vehicle oftentimes is, in the exhibition of medicines, to enſure their ſucceſs.

Many of the ſoldiers buy medicines out of their ſmall pittance of pay, from the Surgeons of the towns wherein they are quartered, rather than be ſubjected to ſwallow the medicines which their own *Doctor* preſcribes for them. In this way they are often great ſufferers, and it would ſeem that there muſt be ſome fault on the Surgeon's part that thus compels them to it. For when this is the caſe, they muſt do their *duty*, as well as buy their medicines; ſince no man is ſuppoſed ſick unleſs he be reported to the Surgeon. I am convinced one reaſon is, the neglect of proper vehicles to adminiſter medicines in. This, I know, is too little conſidered by ſeveral of the regimental practitioners: yet it would add little to their expence in the purchaſe or preparation of medicines.

Settled

Settled Surgeons, who take the care of a diviſion, ſhould daily receive from one of the corporals a liſt of the ſick, for the ſake of order, in the ſame manner as is cuſtomary to be given to the Surgeon of the regiment; this might be weekly tranſmitted to the Surgeon at Head-quarters; nor would this conſume more than a few minutes of his time daily, and could not on that account be objected to.

We ſhall ſuppoſe, from the encouragement given the Surgeon now acting without a mate, that he is enabled to keep a horſe. It will, therefore, be no great trouble for him to viſit theſe different cantonments, if within a moderate diſtance, once, if not oftener, a week, converſe with the Surgeons under whoſe immediate care the men are placed, reſpecting their complaints; but he ſhould never interfere, or order any medicine whatever, without their concurrence; without ſome previous converſation with them on the ſubject. If the caſe be either tedious, or doubtful in its event, they may conſult together. Theſe gentlemen ſhonld have an order to procure what wine may be thought neceſſary for the patient's recovery, in caſes where its uſe is indiſpenſable,

When

When a camp is formed, if it be large, conſiſting of ſeveral regiments, a phyſician is appointed, and a general hoſpital eſtabliſhed; it is obvious that a regimental Mate will be unneceſſary now, ſince all difficult caſes may be ſent thither. But ſuppoſing no general hoſpital, the Surgeon's fatigue cannot be greater than in quarters or barracks; ſince the men are placed equally near him, in the ſmall circumference of a camp.

Suppoſe again, his hoſpital be at ſome diſtance from camp, even two miles; the toil of viſiting it daily, nay twice a day, if neceſſary, is nothing; ſhould it be at a greater diſtance, it would be better if he lodged at it, or as near as he can find conveniency. If he can hire no private lodgings near, which I think can hardly be the caſe in England, let him pitch his tent there, inſtead of ſleeping in camp. He may viſit camp once a day at his leiſure hours, and even dine there; but let the greater part of his time be ſpent near his hoſpital.

The Surgeon ſhould have the choice of the houſe for an hoſpital, where a choice can be made; this, though an affair of the firſt magnitude to his patients, is too often left to the judgement

judgement of a Quarter-maſter. He ſhould take care to provide one ſufficiently large; and if one houſe may not appear large enough to contain all the ſick his experience leads him to expect, two or even three ſhould be rented for the duration of the campaign; two moderate houſes will certainly be enough: this will require not only more nurſes, but more fire-wood, and *Orderlies*, as well as an additional centinel. But ſome trifle in the augmentation of the duty, or the expences, is not to be put in competition with the health of the ſoldiers *. Much of his care ſhould be directed to the prevention of acute and epidemical diſeaſes. If the hoſpital be crowded, and the infectious, and non-infected be compelled to mingle together, diſeaſes may ariſe, which in a ſhort time muſt thin the regiment, notwithſtanding every medical care to ſuppreſs them.

When the hoſpital is bad, and the ſick numerous, if the weather be at all moderate, I

* Government has very wiſely made an extra allowance here, during the campaign. The hoſpital money, which we mentioned to be generally 30*l.* per ann. now ceaſes; and in place thereof, the ſum of 7*l.* 10*s.* a month is given. In five months this amounts to 37*l.* 10*s.* which will defray the expence of ſufficient accommodations.

would

would adviſe a few tents to be erected, and part of the ſick lodged in them. For infectious diſeaſes theſe may be preferable to the hoſpital, in as far as they may be more eaſily kept clean, and a free circulation of air obtained, a thing of the higheſt conſequence. This was practiſed at Mahon. When the hoſpital fever in the late war, Dr. Lind tells us, was brought from England into the hoſpital at Mahon, the houſe being found inſufficient for ſo great a number of ſick, *tents* were reared up in the fields for many of the men. Theſe poor fellows were thought to be badly accommodated; but it was very obſervable, that moſt of thoſe who lay in the cold *tents*, recovered; when the mortality in the houſe was ſo great, that in ſome wards not *one* in *three* eſcaped *.

The cuſtom at preſent is, when the regiment is encamped, to keep the Surgeon always in the camp, leſt accidents ſhould happen there. But this appears a very unneceſſary rule, and is frequently a diſagreeable thing to the Surgeon. If accidents ſhould happen, are not the men eaſily and conveniently carried

* Vid. Lind, on the Health of Seamen.

to

to the hoſpital? Should not this be the caſe, a very ſhort time will bring him to them.

It may farther be ſaid, are not Mates neceſſary abroad, on actual ſervice? Encampments at home may be conſidered as actual ſervice; and if we have ſhown that they may eaſily be diſpenſed with in the one caſe, the ſame will follow in the other. Soldiers abroad are either in garriſons, or in camps; in both caſes the men are never ſo far ſcattered, but the Surgeon may conveniently give his attendance. There are abroad, however, always general hoſpitals eſtabliſhed, which muſt ſubſtract greatly from his labour. Beſides, the regiment is almoſt daily on the decline by deaths, deſertion, &c. and cannot abroad be eaſily recruited. The fewer the number of the regiment, the leſs muſt be his toil. Should a battle be fought, much aſſiſtance, indeed, may be neceſſary; but even then the wounded are ſent, as faſt as convenience will allow, to the hoſpital. A general battle is, nevertheleſs, what ſeldom happens; ſkirmiſhes more frequently take place; here a few men out of a party detached on ſome ſervice, may be wounded; but this can never create ſo much fatigue to the Surgeon, as

to require a mate conſtantly in the pay of government.

It may be farther urged, that the Surgeon may fall ſick, therefore be unfit for duty: this may take place; but he will always find ſome of the faculty, where he is quartered, ready to give aſſiſtance, provided he has formed any acquaintance among them, as we have elſewhere ſhown he ought to do; at leaſt, they will readily undertake his duty, for the medicine money, till his recovery. Should the ſame happen on foreign ſervice, he may have the aſſiſtance of ſome brother Surgeon, ſince one regiment is ſeldom ſtationed alone for any length of time on theſe ſervices. A neighbouring Clergyman will officiate for his ſick brother, and a neighbouring Surgeon *ought* to do the ſame for his ſick friend. I mean here only regimental Mates; I meddle not with the hoſpital Mates, nor the regulations and œconomy obſerved there; this would be ſtepping beyond the bounds of my ſubject.

Inſtead of the medicine-money which we think ſhould never be placed in the hands of the Surgeon, and for any fatigue more than uſual, he may be liable to undergo from the

want

want of a Mate, he ought to be allowed the Mate's pay in addition to his own; and from neither ſhould any deduction be made. Beſides this, a gratuity ſhould be given by each officer to purchaſe medicines for themſelves: he is obliged to give them advice, but not medicines.

In ſome regiments, as matters now ſtand, the Surgeon is allowed a guinea a year from every Subaltern; two from each Captain; three from the Major; five from the Lieutenant Colonel; and ten from the Colonel. For each ſoldier whom he inoculates for the ſmall-pox, government allows a guinea. This might enable him to live tolerably well, at leaſt in a cheap country; and yet I am ſtill of opinion, that even this is too ſmall for the encouragement of men of ſcience to continue in the ſervice. This ſhould be equal to what they may expect out of the army; indeed, if we conſider the many hardſhips which they undoubtedly muſt ſuffer, who are engaged in the army, to which perſons out of the ſervice are not expoſed, it ought to be more than equal.

It is not to be ſuppoſed that a man whoſe fortune is his profeſſion, and who has waſted

not only much time but money, in acquiring a proper knowledge in it, will ever enter into the army for one hundred a year, (his pay is only 80l.) when he has the proſpect of making more than four times this ſum in common life, with equal eaſe, and a better reputation. Why then not allow him the ſame hire? When this is done, he is not on an equality with the other officers in many reſpects.

Let us ſuppoſe him twenty-five years of age before he be qualified for his office; I ſhould think it almoſt improper, that any perſon ſhould enter into the army as a Phyſician, or qualified Surgeon, till he be nearly this age; neither is his underſtanding properly ripened, nor can a liberal education be finiſhed much earlier; and till both take place, he is unfit for ſo important a charge. Let us ſuppoſe, alſo, that he has received an expenſive ſchool education, and afterwards reſided ſeveral years at an univerſity, (the leaſt is four) and at no ſmall expence. All this is to be done before he can begin, as I ſhall call it, the world; or is in a ſituation to recover an equivalent for his time, money, and trouble. Here is upwards of one third of life waſted, which

4 ought

ought ſurely to be conſidered of material weight, ſince we find the period of man's days ſo limited.

On the other hand, a youth at the age of ſixteen, (and many have been admitted much younger) may rank as an Enſign in the army. He *may*, or he may *not* have received a claſſical education; (at this age it muſt be a very imperfect one;) this is not thought a requiſite in the military profeſſion. Let us ſuppoſe that he has not received one, which I am apt to believe will moſt commonly be found to be the caſe; at the age of twenty-five, if he be fortunate, he may rank as a Major, nay, a Colonel; for to uſe the words in a theatrical piece, repreſented ſome time ago, "Colonels are all *young men now*." Here are two advantages he has above the Surgeon, not to mention others; firſt, he receives pay from the age of ſixteen, and without much previous expence for education; and ſecondly, at the age when the other is only qualified to be admitted, he has not only an equivalent for his time, money, &c. but is far ſuperior to what the Surgeon can *ever* expect in his ſtation. Moreover, the officer has the farther advantage of having in view ſeveral other ho-

nourable, as well as lucrative ſteps before he arrives at the top of his profeſſion*. The Surgeon has few or none.

It may be ſaid, the officer often purchaſes, and thus pays both for his rank, and the emoluments ariſing from it: this, however, will make very little difference in the caſe, becauſe they have permiſſion to ſell when they wiſh to retire from the ſervice. A Surgeon is often placed in ſimilar circumſtances; he often, in like manner, purchaſes, and it is only then he has permiſſion to ſell, if he chuſes to quit the army; nay, of late, he is forbid to ſell, notwithſtanding he may have purchaſed; and what is ſtill worſe, when he is ſuperannuated and ſo infirm as no longer to be capable of doing the duty of his ſtation, there is no proviſion for him. He *may* retire, but if he has no private fortune, which

* The ſteps of preferment are few in the Surgical line: the vacancies happen ſtill more rarely. We have but few general hoſpitals belonging to the Britiſh army; few, therefore, can at all hope for preferment above that of a regimental Surgeon. Nay, we have heard, but ſhall not poſitively aſſert it for truth, that the Surgeon General, ſome time ago, gave it as his opinion, that regimental Surgeons were unfit to be Surgeons of Army Hoſpitals. If they deſerved this reflection, is it not ſtrange, that they ſhould have been appointed Surgeons to regiments?

for

for the moſt part is the caſe, he retires to *ſtarve*. Was he allowed, in his old age, to ſell, he might be able to ſubſiſt the reſt of his life. On the whole, it would appear but a moderate allowance, if government would ſettle two hundred pounds per ann. free of all deductions, on the regimental medical practitioner, with the addition of Rations, when on ſervices where theſe are allowed, of the ſame value as received by a Captain.

This regulation would not ſtand government in more than the ſervice already coſts. When the Surgeon's and Mate's pay are added, it amounts to 7*s*. 6*d*. a day; three and ſixpence a day more is all the addition required. Ten pounds per ann. may lawfully be ſubſtracted from the medicine money, which will reduce it to 60*l*. per ann. in regiments where 70*l*. is now allowed; a very great quantity of genuine medicines may be purchaſed for this ſum; even more than ſufficient for the ſick, not only of 400, the preſent, but 636, the late war eſtabliſhment of ſeveral regiments. A guinea is the allowance for every man the Surgeon inoculates for the ſmall-pox; this ſhould be ſtopped, and in place thereof 10*l*. per ann. added to the pay.

Inoculation is now well underſtood, and needs little addition of medicine or trouble. Beſides, he ought to perform every medical duty, as it occurs, without a bribe.

We may venture to ſay, by this regulation government will be a ſaver; for one year with another every regiment muſt coſt upwards of ten guineas in this article. In place of the medicine cheſt of addition, which each regiment receives when in camp, let 6*l.* a year be allowed. We ſhall endeavour to prove in another place, that it is ſuperfluous, and is not in reality needed for the intention it is given; at an average it muſt be worth more than 6*l.* a year.---We have now found no leſs than 26*l.* of the ſum required; there remains only the ſmall deficiency of about 30*l.* a year to compleat the augmentation propoſed. This ſmall ſum muſt ſurely be looked on as a trifle, when put in competition with the good that muſt reſult from it, both to the ſoldiery and the Surgeon, but chiefly in what relates to the health of the former. The ſcheme to be adopted to raiſe this ſmall augmentation I muſt leave, however, to the wiſdom of the Legiſlature.

An

An author, who upwards of twenty years ago, treated of this ſubject, ſays, "Gentlemen filling the medical character, ſhould be ſought out more reſpectable, better qualified, and every way more truly honourable; and then they ſhould alſo be better rewarded than the generality of the preſent deſerve to be."--- He is of opinion, a regimental practitioner, qualified properly by a liberal education, ſhould not have leſs than 250*l.* per ann.--- "This competency," he adds "in time of peace would be an inducement to abundance of learned and ingenious men, of ſufficient ſcience, to diveſt themſelves of ambition, and to quit the farther buſtle of a buſy world, for the means of a genteel employment in thoſe paths, into which from their firſt outſetting in life they had early entered*." The Surgeon, however, I am perſuaded would think the augmentation we have propoſed ſufficient. And, indeed, it would be ſufficient, provided no ſtoppages; I mean no arrears be allowed. To the charities they ought to contribute as they do now. The ſcheme the above author deviſes for his augmentation is from the ſtock

* Vid. Brockleſby on Œconom. and Mil. Diſ. &c.

purſe, but this appears to me exceptionable. It is a pity to rob one officer to ſerve another.

I am apt to believe the reader, who underſtands the army cuſtoms, and regulations, will readily agree with me, that the pay of ſubaltern officers in the army, is far too ſmall, and greatly inadequate to their neceſſary expences. Three ſhillings, or three and ſixpence a day to a man, obliged to live as the rank of an officer requires, is leſs than ten-pence a day to a labouring man, or even ſix-pence to a ſoldier: I could prove that the ſoldier on his ſix-pence, is at the end of the week, unleſs he be a ſpendthrift, the richer man of the two; *i. e.* can ſave more money from eating, &c. than the ſubaltern; but this is a ſubject which does not ſo much fall under our conſideration here; yet it is not unworthy of a more accurate inveſtigation; nor ought it to be beneath the notice of government: this likewiſe I have touched on in another place*.

With reſpect to Surgeons, the difference between a wandering life, like that of a ſoldier, and a ſettled life, like a private Phyſician or Surgeon, is ſurely very great. By an allowance of 200*l.* per ann. we ſhall not find

* Vid. Treatiſe on the inſufficiency of Subaltern's pay.

that

that the regimental Surgeon enjoys any thing above a moderate competency. If he wiſhes to marry, which it is hoped is a ſtate that will rather gain, than loſe credit in the army, he muſt, even on this ſum, exerciſe all poſſible œconomy to educate his family decently, and ſettle them reputably. Will any one venture to aſſert that there is any thing like ſuperfluity in a ſalary of 200*l.* a year, as times go, allowing for an officer's expences, and as the value of money now ſtands?

In almoſt any other way of life a man may obtain this, and that without either the toil or anxiety of ſtudy, or the expence at which medical honours muſt be obtained. In moſt of the genteel mechanical branches, a ſum as large can be yearly cleared. If this be true, who would enter the army, where he muſt ſtarve on much leſs than the half? A ſoldier (we include the Surgeon in this title) purchaſes every article of life at a far greater price than others. He muſt dine at a common tavern expence, almoſt wherever he goes; in every town he finds himſelf a ſtranger, and moſt people he deals with ready to make what advantage of his ſituation they can. He is ſeldom above a few months in one place; beſides,

beſides, the cuſtom of the army renders it almoſt neceſſary for him to frequent public places : at leaſt, he muſt often appear there, if he wiſhes to get into genteel company ; this is a conſiderable additional expence.

I would now hazard an opinion with reſpect to another regulation ; *i. e.* when a Surgeon is deſirous of retiring from the ſervice ; he ſhould let his intentions be known to the Colonel, ſix months previous to his reſignation. And if the place is to be purchaſed, no candidate ſhould be allowed to make propoſals, who was not qualified in the manner already ſet forth ; and till he produces his diploma before a committee of medical gentlemen appointed for this purpoſe, who are to judge, whether the claim to the privilege be valid or not.

It would be better ſtill for the practice, if the place were not to be purchaſed, leſt corruption ſhould ſometimes ſlide in ; for he that can procure a ſum ſo large as to purchaſe 200*l.* a year, will never want for intereſt. It would ſell for little leſs than a Captaincy : now, it is well known, that few who can raiſe this ſum, will ever undergo the fatigue of ſo much ſtudy, as is requiſite to the right diſcharge of the office ;

fice ; when they may procure a place equally, if not more lucrative, as well as honourable, without much literature, or the expence that attends a liberal education. The regulation of the price, when it is to be ſold, ſhould, however, be ſettled by government.

I ſay leſs *honourable* ; for the Surgeon is held in an inferior light to the youngeſt Enſign ; and the King himſelf conſiders him ſo. In the year 1778, when his Majeſty reviewed the camps, no Surgeon was allowed to kiſs his hand, a permiſſion granted on that day, to every officer down to the Chaplain, except the Surgeons of the Militia, who were preſent, who bore commiſſions as officers, and did it in virtue thereof. This diſtinction was *not* given to any lower than the Chaplain, and the Surgeon ranks after him. This proves that it is conſidered as *leſs honourable* to be a *Surgeon* than an *officer*. Why it ſhould be ſo, I leave to others to inveſtigate.

Since this appointment is a matter of great conſequence to the regiment, intereſt ſhould, as far as poſſible, be excluded ; merit only ſhould meet with encouragement ; neither rich friends, nor high birth, can ſupply medical knowledge ; therefore both ſhould be excluded

cluded where this is wanting. But it is always to be preſumed, that where an univerſity has granted its licence, this, for the moſt part, is to be found. Yet even here there is a choice, for the talents of one may far exceed thoſe of another, though both have acquitted themſelves to the ſatisfaction of their Examiners.

I have ventured, in a former chapter, my opinion relative to genius; and preſume, obſervations will confirm that ſuch exiſts, if care be taken to compare the different progreſs of different perſons following the ſame purſuits, and who have enjoyed the very ſame opportunities of improvement. It was this (genius) that Celſus meant, when he ſaid there ought to be in a Phyſician, or Medical Man, a *certain quality*, which can neither be named, nor eaſily underſtood.---" It is this undefinable ſomething of this great *man*, *that* conſtitutes the difference between two Phyſicians, who have had the ſame education, have ſeen the ſame caſes; have, in ſhort, had the ſame opportunities of acquiring knowledge, and yet the one ſhall infinitely excel the other. It was this ſame thing which made the difference, Martianus perceived between *himſelf* and

Galen, and which induced him to ſay, one day, when he met him at Rome,---*I have read the prognoſtic* of *Hippocrates as thou haſt, why then cannot* I *prognoſticate as well as thou?*"

There is nothing, perhaps, that has contributed more to the preſent contempt in which regimental practice is generally held, than the buſy interference of intereſt. A young man has, perhaps, never been in any medical ſchool, or very little; he goes out to ſome of our colonies, in character of a mate, with as little medical foundation; he is, perhaps, a good companion; a *jolly fellow*, as the term is; and, on the whole, an agreeable young man. By his officiouſneſs, and attention to perſons of ſuperior rank in the army, he ſtill ſtrengthens his intereſt; he is ſoon recommended for preferment in his profeſſion, and as ſoon obtains it. Though, in many reſpects, he may be very deſerving, yet ſuch muſt be an improper perſon for the truſt now committed to his charge.

They do not conſider, that neither his jokes over the bottle, his ſmart repartees, or the ſtudied politeneſs of his addreſs, can aſſiſt him in removing the gout from the ſtomach, ſhould any of his company need his aſſiſtance

in this way, nor yet give him abilities to remove diſeaſes, when his duty calls him among his patients. A French lady was told, her Phyſician had not common ſenſe; ſhe replied —*tant mieux—Un homme qui paſſe ſon tems à etudier le ſens commun, comment peut-il apprendre la medicine?* She thought, if he had conſumed his time in ſtudying *common-ſenſe*, he would have had none for the ſtudy of phyſick.—Not reflecting, that if he wanted common ſenſe, he muſt be but a poor preſcriber.—But from recommendations, and promotion obtained by the means we have ſuggeſted, it would lead one to think, they too frequently conſidered medical ſcience as the attendant of *jollity* and *good-fellowſhip*—But we may anſwer with the ſame lady, though ſhe applied it differently.—*Qui parle grec comme Homere, ne ſait pas danſer.*—He that ſpends much time in one purſuit, *muſt have* the leſs left for others.

Again, young men may be employed as Mates in General Hoſpitals, be expert enough at dreſſing a wound or ulcer, yet be altogether unqualified to preſcribe in diſeaſes of the general ſyſtem; nay, even in many topical complaints. To cure a fever, and ſpread and apply

apply a plaiſter, are truly different, requiring very different abilities; the one is obvious, and a knowledge of it more eaſily acquired; the other complicated, and difficult of inveſtigation, and requires much knowledge, even in collateral branches of ſcience.

It will be ſaid, ought not ſuch as have ſerved in the capacity of Mates, in regiments, for upwards of twelve, fifteen, nay ſeventeen years, to be promoted to Surgeoncies, when vacancies happen? Undoubtedly, provided they be found qualified for the office: but length of ſervice, though it ought to be rewarded in ſome way, ſhould not entitle a man to an office, the principal duties of which he is ignorant how to perform, and likely ever to remain ſo*; there is an abſurdity in the very ſuppoſition. If any ſuch be found in the army, by all means let ſome reward be

* Mr. G—— ſerved as Mate ſeventeen years and more, in —— regiment of foot; the Surgeoncy at laſt became vacant; he offered himſelf at Surgeon's Hall for examination, and was rejected, as not qualified; and yet my informer aſſures me he had the ſole medical care of the regiment, for near eight years of the time he ſerved as Mate. If unqualified, why ſo long truſted? The fault lay in admitting him at firſt, without qualification.

given

given them ; but ſuffer them not to be advanced to an office where they may have an opportunity of doing miſchief ; nor, like unwholeſome leaven, let them be incorporated with the new maſs, leſt the whole be contaminated.

It will be ſaid, is no aſſiſtant neceſſary ? is the Phyſician or Surgeon to do all the drudgery himſelf ? It has already been proved, that no great degree of drudgery can attend it ; at leaſt, not more than one perſon, by the aſſiſtance of an Hoſpital Nurſe, and one or two Orderlies, can perform. We ſhall, however, allow an aſſiſtant, but one which ſhall be no additional coſt to the ſtate.

In every regiment there are one or more old worn out men, who are diſabled either by ſome diſeaſe, or perhaps by age from doing duty, and are always allowed the privilege of remaining on the ſick liſt. Let one or two, if neceſſary, of the moſt expert of theſe, be choſen for the purpoſe. And with a very little care, nay, with a few day's inſtruction, they will be qualified for moſt of the ordinary buſineſs of a Mate. They will ſpread plaiſters, dreſs ſmall ſores, and puniſhed

mens

mens backs*, make unguents, boil poultices, and many things of this nature that are neceſſary, and will be done by them with pleaſure, though if left to a man of education, ſuch as the Surgeon, would be troubleſome, and even beneath him to perform; if any thing in the way of his duty ought to be held in this light.

Such an aſſiſtant is analogous to a porter in a druggiſt's ſhop. I know from experience this is practicable; I have taught no fewer than five ſuch perſons with very little trouble, and who, in a very ſhort time, have after-

* Since I have occaſion to mention puniſhed men, give me leave to relate what I was lately told to be facts, that fell within the knowledge of my informers.—A medical gentleman in this neighbourhood affirms, that a ſoldier died, after receiving 700 laſhes, and that in a very ſhort time after.—Another profeſſional gentleman likewiſe declares, he knew one to die in Dublin, after 500.—I had mentioned, when on the ſubject, that I believed few, if any, ever fell martyrs, immediately to flogging.—I am ſorry to have it in my power to record theſe two caſes—but it is hoped they may ſerve to put the Surgeon on his guard, when his duty demands his preſence at puniſhments.—It has lately been hinted to me, that if it was recommended to the Surgeon, to adviſe that the culprits be bound down to a flat board, or table; that in this ſituation they could bear more puniſhment with leſs danger, than if they were tied up in the common way, with their hands ſtretched above their heads, to the halberds—the experiment is certainly worthy trying—at any rate, things cannot be worſe.

wards ſaved me many diſagreeable jobs, that without them I muſt have undertaken. I have been ſometimes almoſt tempted to truſt them to bleed, only that this is an operation, that ſhould never be truſted to men ignorant of the ſtructure of the parts concerned in it.

Farther, reſpecting the inutility of Mates; we know that in time of war, almoſt any thing, having the appearance of a man, is acceptable; hence the ſickly and healthy, the ſtrong and the weak mingle together, and all muſt do the ſame duty. In times of peace, none but the young, ſtrong, and healthy are enliſted. It is reaſonable, then, to ſuppoſe, that number for number, fewer will be ſick in time of peace than in time of war; the duty in time of peace is likewiſe leſs than in war; and ſince we have already ſhown, they may be diſpenſed with in time even of war; it is obvious they may be diſpenſed with in peace. An epidemic may ariſe at any time, whether in peace or war; but it is no objection to our propoſed plan.

I have ſpoken all along of the full complement in time of war; but it is evident there muſt be much fewer in time of peace, conſequently,

quently, leſs buſineſs to employ the Surgeon. Sometimes, the peace eſtabliſhment is ſo low as twenty-ſeven a company, eſpecially in Ireland. The peace eſtabliſhment before the preſent, I think, was at this number; the preſent, however, is forty a company, which ſuppoſing the regiment compleat, amounts in ten companies only to four hundred men. Surely one perſon is ſufficient to take care of the ſick of this number, which, at an average, can hardly exceed twenty; and more than half of theſe, ſuch caſes as may require very little medical aid. When the labour is ſo ſmall, where is the utility of a Mate? A period of ſeven years we conſider as a long war; but we are often bleſſed with a peace of three times this period. This I would conſider as a farther argument for the reduction of Mates. According to our calculation, it is plain, in time of peace, they may be diſpenſed with; and we have already advanced reaſons to ſhow the office may be even ſtruck off in time of war, ſuppoſing the regiment at its full complement.

Some may ſtill farther object, that if a Mate be not allowed, the Surgeon's attendance in the field on field days, muſt be in-

terrupted, for ſome perſon muſt remain convenient to the ſick. To this I anſwer, that his attendance on common field days may very readily be diſpenſed with; there is no abſolute neceſſity for it. Indeed, it is conſidered more as a compliment to the officers, than as of any utility expected from it. The Surgeon, or Mate, for they generally attend alternately, are never expected in the field, unleſs the officers alſo be ordered out. When the Adjutant and only an orderly officer march out the regiment for exerciſe, neither he nor the Mate goes.

The reaſon given for their going at all, is, leſt accidents ſhould happen. We might give the ſame anſwer to this, which has already been offered to obviate the cuſtom of ſleeping in camp; the accidents which take place are of ſo trivial a nature, in general, that they very rarely require the preſence of a Surgeon; they are ſeldom more than a ſcratch with a flint, or a ſlight cut in the hand, in the hurry of fixing and returning the bayonet. During ſeveral years, I never knew nor heard of any, ſave the following: firſt, in very uneven ground, a man, at one of the great guns, fell,

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in the hurry of changing the poſition of the line, whereby the wheel of the carriage on which a ſix pounder was placed, ran over his legs, and fractured the fibula; but when this did happen, of what uſe was the Surgeon's preſence there? He neither could, nor did he attempt to do any thing till the man was carried to the hoſpital: when this took place, the regiment were at exerciſe near ſeven miles diſtant from it. Might he not have been at his hoſpital, or near it, all the time? A ſecond caſe happened, during my being out with the men one morning, when by over fatigue, one of the privates fell ill; the commanding officer ordered him off the field, with two drummers to aſſiſt him to the hoſpital, while I followed at my leiſure, juſt time enough to be there when he was laid in bed. Might I not have remained at the hoſpital? A third, and it compleats the catalogue of accidents, happened on another field morning, in cold weather, when in the hurry of manœuvering, a ramrod was ſhot through a man's hand; here the patient was taken to the hoſpital to be dreſſed. Where then, in theſe caſes, was the neceſſity of the Surgeon's preſence in the field?

A ſurgeon may be as uſefully employed at home as in the field; it is enough if he be ordered to keep himſelf always in readineſs on days of exerciſe, leſt accidents ſhould take place. Suppoſe him in the field, his preſence can be of little uſe; he cannot carry a medicine cheſt with him; when his aſſiſtance is wanted, it is not always in the way of bandage and plaiſter; yet, if they will inſiſt on it, becauſe it has long been a cuſtom, I ſhall not contend much againſt them. The orderly men, with proper directions given them, will ſufficiently ſupply the place of Mate in the hoſpital, till the ſurgeon's return, which is generally in the ſpace of a few hours.

In treating on this part of my ſubject, ſome have differed from me in opinion. They think Mates neceſſary. They agree with me in what is ſaid reſpecting the encreaſe of the Surgeon's pay. But they think it would not be liberal to do it at the expence of Mates. "And in another ſenſe," ſay they, "it is ſurely *impolitic*, as it would tend to diminiſh a conſiderable branch of *exportation* from that part of the iſland, of which we appre-

hend, Dr. H. is a native *." In this criticiſm there was evidently a little *flouriſh* againſt the Scots. Many of them, doubtleſs, go to other countries to puſh their fortunes. But frequently they carry with them what is as uſeful to the inhabitants of the places they go to, as the bread which theſe afford is to them. It ſeems a fair and mutual ſpecies of traffic. Both are ſatisfied; the emigrant and the native of the country emigrated to, becauſe both are benefited. The Scot, whether it be by his abilities and communications in the arts and ſciences, or whatever elſe he employs his talents in, gives them what they either want or eſteem; while they, out of the abundance of the things they poſſeſs, and of which he ſtands in need, feel no hardſhip at the reciprocal exchange. Perhaps this nation has done more in ſpreading uſeful communications, both in the Arts and Sciences, throughout Europe, at leaſt ſince the reformation, than any ſingle nation in it; and, perhaps, alſo, the mediocrity of their circumſtances was the real cauſe, by ſtimulating them to induſtry, and by cauſing them to carry the

* Vide Britiſh Crit.

fruits of that induſtry where it could find the readieſt market. While I have attempted this apology for the Scot, I declare myſelf neither a native, nor the ſon of a native of that nation: and the above, which appears ſomewhat like a ſarcaſm on that ingenious people, cannot, in this light, apply to me. A man may diſgrace his country, but I know of no country, as ſuch, that can diſgrace the man. National reflections, perhaps, it would be beſt always to avoid, for I believe they are ſeldom juſt.

Theſe will be conſidered, I apprehend, as unwarrantable innovations, an appellation which all reformation receives; and the propoſer be alſo held as ſelf-intereſted. But we hope this will not be found true. There are ſome ſuperior to ſuch ſordid motives; ſuch may propoſe ſchemes, that may be denominated innovations; they diſintereſtedly propoſe them, and only becauſe they appear preferable to cuſtoms in uſe. The public muſt judge from the arguments adduced in their favour, and the inconveniences of the others compared together. On ſuch evidence their merit ſhould reſt; and they ought

to

to ſtand or fall in the public opinion accordingly.

There is no great fear, however, from innovation, where uſe and cuſtom have long ſwayed. It has always been found difficult to remove what has been long eſtabliſhed, though ever ſo abſurd. Such is the force of habit, even among the intelligent.

To give an example from our own profeſſion, though they may be drawn from every part of life. I knew a Surgeon who uſed a tooth drawer, invented almoſt in the infancy of the improvement of ſurgical inſtruments, though well acquainted with its inconveniences, and who had ſeen many of the beſt form. It had been in the family, I believe, ſome generations; he preferred it to all others, though he had not a ſingle argument, but habit and cuſtom, to urge in its favour.

This may not be a caſe exactly in point, yet it will ſerve to ſhow us the power of prejudice; the prejudices of our fore-fathers, even in what relates to education, lie deeply rooted in us. Innovators appear like the approach of an enemy; we are rouſed, and unite

unite our force againſt them. Innovations then, or improvements of any kind, in any department, will ever meet with warm oppoſition; but this will never ſerve with the unprejudiced, for a reaſon, that they are always unneceſſary.

CHAP.

CHAPTER XVI.

OF EXTRA-MEDICINES ALLOWED EACH REGIMENT, WHEN IN CAMP, INDEPENDENT OF THE MEDICINE MONEY; AND OF THEIR UNNECESSARY EXPENDITURE.

To every regiment encamped in England, as well Militia as Regulars, a cheſt of medicines is ſent by government, in addition to the common allowance of medicine money. I preſume the ſame method is followed on ſervices abroad. This is done on the ſuppoſition of more diſeaſes appearing in camp, than in quarters, and on a preſumption that the medicine money be too ſcanty to purchaſe all that may be required. Both theſe ſhould be proved before the ſuppoſed deficiencies be ſupplied.

With reſpect to the firſt; it frequently happens, that where the ground for the encampment has been well choſen, and a due regard paid to ſituation, ſoil, and water, (as far as circumſtances permit) neither more diſeaſes, nor greater fatality will take place, for the moſt part, in camps than in quarters. Though

Great

Great Britain be chiefly meant here, we may add Ireland alſo; nay, inſtead of more, much leſs ſickneſs has taken place; and camps have proved more healthy than either quarters or barracks were in large towns, or in bad ſituations, or otherwiſe unfavourably contrived *. I can point out an inſtance, where a camp turned out more healthy, both to the officers and men than quarters. In one caſe, in all probability it ſaved the life of an officer. This gentleman was of a ſlender make, a delicate conſtitution, and mobile temperament from nervous weakneſs, chiefly induced by irregularity in living: he had been long affected with a chronic catarrh, and even laboured under an affection of the lungs. This was proved repeatedly from the bloody ſputum

* Several of the barracks are ill-contrived; we may give for example, thoſe of Chatham Lines, and Hilſea, at Portſmouth. The barracks at Tynemouth, are not only too ſmall, but the walls too thin. If barracks be built of brick, the walls ſhould be of a proper thickneſs to reſiſt the rain, &c. Great attention ſhould likewiſe be paid to the quality of the bricks. If they be made of ſalt water, the walls can never be dry, from the ſtrong attraction ſubſiſting between the acid in the bricks, and the moiſture of the atmoſphere. I have ſeen floors laid with ſuch bricks, that were conſtantly wet, as if newly waſhed, though a fire was kept almoſt daily in the room.

he

he ejected at different times. His cough was inceſſant, and frequently deprived him of ſleep; and he was almoſt as emaciated, as if in the laſt ſtage of a conſumption. But ſoon after taking the field in the beginning of July, 1782, on a dry common, in an elevated ſituation on the eaſtern coaſt of Suffolk*, all his former complaints almoſt entirely vaniſhed; he recovered his fleſh; his cough diſappeared; and every day gave him a healthier look.

The good effects of the healthy ſituation did not take place in him alone, but among the troops in general that formed the camp. In the end of September, when they were reviewed by the Commander in Chief, not a ſingle man was ill in one of the regiments, and in the other ſcarcely any, that deſerved to be in the Surgeon's liſt. During a ſpace of four months, only one man was ſeized with a fever; nor was this the offspring of the place; for he brought it with him, from a priſon where he had been confined for ſeveral months before; the commanding

* On Hopton Common, between Yarmouth and Loweſtoffe.

officer

officer having given him up to the civil law, for an accuſation brought againſt him.

Wet, and otherwiſe unhealthy ſeaſons, may happen; nor will the ſervice always admit of the beſt ſituations for encampments. For the moſt part, however, in England and Ireland, it will be the fault of thoſe concerned in chuſing the ground, if the ſituation be bad. We are not now hemmed in to a mile or two by an enemy. Proper attention is very far from being paid to the ſituation of camps on every occaſion; might we not bring the common now mentioned as an example? In the year 1781, a number of troops were encamped on it in a piece of low ground, but not above a muſquet ſhot more to the north; whenever a few hours of rain came, the water ſtagnated among the tents, and even deſcended from the higher ground among them, the bad effects of which were ſeverely felt. They were taught by next year that experience, at the expence of much ſickneſs, which common ſenſe, without much philoſophy, might have plainly predicted, and at firſt pointed out to them, in laying out the ground.

The Surgeon in theſe caſes is ſeldom conſulted; indeed he is ſeldom preſent: for the ground

ground is generally marked out ſome time before the troops arrive on it. As he is much concerned in the conſequences, he ſhould have a vote in the management, and more eſpecially as his medical knowledge gives him, or ought to give him pre-eminence in judging of it; therefore he ſhould be ſent to the ſpot to reconnoitre, ſome days before the march commences.

The Quarter-maſter is always ſent; he may now accompany him, and in forming his opinion of the ſoil, &c. he ſhould take the aſſiſtance of the medical people near the place. He will be of much more utility if employed on this ſervice than with the regiment on the march, to watch for accidents and other maladies, which ſeldom take place; and where, like field ſervice, as already treated of, when they do happen, he can prove of little uſe till the men arrive at the deſtined ground; beſides, a ſecond advantage would reſult from it; he would have a place provided for an hoſpital, and be prepared to receive what ſick he had. It is always ſome days after their arrival before the ſick can be accommodated, in the manner we generally go to work at preſent.

We

We know, indeed, that at an average with other countries, Great Britain may be ſtiled moiſt; the ſeaſons are variable, and the weather often ſuddenly changeable throughout the iſland; yet we find alſo in it, occaſionally, long ſeaſons of fair dry weather; it was ſo in the ſummer of 1783—it has been ſo even in winter ſeaſons. The greater degree of exerciſe the ſoldiers are obliged to take, from the nature of camp duty, is conſiderably in their favour, provided it be not carried by frequent field days, to a degree of over fatigue. It is well known, that nothing is more conducive to diſeaſes than indolence. A certain degree of exerciſe in moiſt and relaxing weather, and when the men are not ſuffered to lie down in wet clothes, is altogether neceſſary to obviate ſickneſs. The beneficial influence of motion, in carrying on the circulation of the fluids, and preventing obſtructions, is equally well known; none will deny that it braces and ſtrengthens the body.

In towns, ſoldiers, for the moſt part, have too little exerciſe; infectious diſeaſes are frequently foſtered there; and troops quartered in them very apt to catch the reigning maladies,

dies, their way of life contributing to this end; their billets are dirty and incommodious and their own irregularity great. Wherever infectious diſeaſes happen, if ſoldiers be expoſed to contagion, they are more ſeverely handled by them than others. Such diſeaſes, alſo, are always obſerved to take their riſe among the pooreſt of the inhabitants, where their clothes are ſeldom changed, and their dirty and ill-aired habitations ſeldom ſwept; living in cloſe allies, and confined ſtreets. In heſe places the ſoldiers are frequently converſant, which expoſes them to the infection; while their poor living, as a debilitating cauſe, prediſpoſes their bodies for its reception.

Again, if proviſions be wholeſome, and the ſeaſon not remarkably moiſt, we have no reaſon to apprehend much diſeaſe in camp. It ſeldom happens that proviſions are ſcarce, or of bad quality in England; it is famed through Europe for plenty. Soldiers encamped here are not cut off from ſupplies by an enemy; neither are they, in general, harraſſed with fatigue. The markets are open to them; they are now ſtocked in greater abundance, by ſuch as have proviſions to diſpoſe of in the neighbourhood. None need

complain of hunger who has money to purchaſe. A ſoldier has always his ſtated pay, on which he endeavours to live, now faring better, now worſe, according to the rate of victuals; but as meſſes are formed in camp, and a contractor furniſhes them with proviſions; their fare is nearly the ſame whether dear or cheap.

Wet ſeaſons, vitiated air, and ſalted food, will give riſe to the ſcurvy*; but all theſe cauſes are ſeldom found to concur in England; hence it is rare to find this diſeaſe among camps in Britain. Bad food, and wet ſeaſons, &c. will likewiſe give riſe to dyſentery; and very dry ones lay the foundation of cholera, yet record does not furniſh us with many dangerous epidemics of theſe kinds, during the encampments of Britain. In many parts, we grant, intermittents, are endemic; but we neither find them ſo dangerous nor ſo numerous, for the moſt part, as in ſome other countries, where there is more moiſture, more wood, and leſs free perflation. The jail, or camp fever, has appeared in England; it has done the ſame, and even to a great degree in

* Trotter, on Scurvy, Ed. 2d. He proves that a deficiency of oxygene in the habit, is the cauſe of this diſeaſe.

quarters.

quarters. It aroſe among the troops in the caſtle * of Edinburgh, in the ſpring of 1780; and, perhaps, on other occaſions, with as much violence and danger as ever it has been found in camps. All theſe diſeaſes are more the offspring of other climates than Great Britain; and on an average, as often in towns, as in camps formed in any part of the iſland. Now, if this be allowed, it is plain, there is not more need of additional medicines in camp; and it follows, that the additional cheſt is unneceſſary.

As to the ſecond argument, that the common medicine-money is not ſufficient, we have already delivered our opinion and reaſons on it. We ſhowed, that not above a third of it is ever expended in medicines, nor is it wanted; hence we have propoſed the ſum of ten pounds to be taken from it, as part of the additional pay to be granted to the Surgeon. Genuine medicines may be purchaſed for 60l. a year, more than ſufficient for the ſick of 700—in peace we have only 400 men. The regiment is ſeldom compleat; yet, did it conſiſt only of twenty men,

* Vid. Diſſert. in aug. de febr. auctore J. Bell, 1780.

the full complement of medicine-money is given.

We ſhall ſuppoſe that the cheſt diſpenſed yearly to each regiment in camp, is worth at an average 6l. 6s.—and let us again ſuppoſe the number of regiments encamped to be ſixty *—this amounts to 360 guineas a year. This ſum will be much better beſtowed in money to the Surgeon of each regiment, as an augmentation of the pay. It will be ſaid, that it is a matter of no moment whether he receives the medicines or the money, ſince he can ſave it out of the medicines; but it will be better to ſtop it, and let ſix pounds a year be granted; *i. e.* let him enjoy a ſubſiſtence of eleven ſhillings a day, of which this will make part of a fund from whence it is to be defrayed.

It is readily granted, that taking the field is more expenſive than quarters. A marquée muſt be purchaſed, with bed and utenſils neceſſary to furniſh it; but the forage of three horſes will aſſiſt in defraying it †. I

* In 1782, ſixty-three regiments were encamped in England.

† In the plan propoſed, it was mentioned, that the Surgeon ſhould be allowed Rations equal with a Captain, during encampments, &c. a Captain receives for three horſes, beſides Bat. and Baggage money.

ſtate

ſtate this at two ſhillings a day; which in five months, the uſual time of encampments, amounts to 15l. This we allow, is far inferior to the firſt year's expences in camp; but taking three years, at an average, it will be ſufficient; a good marquée will laſt three ſummers, if the weather be moderate; the firſt year's expences we ſhall ſtate at 27l. 2s. the next two only at 10l. each *; the whole extra-expences then, for taking the field for three years, amount only to 42l. 2s. his forage money, for the ſame time is 45l.—But to this we are to add the Bat. and Baggage money, allowed officers in camp, and his ſhare of this is to be equal to a Captain's; from all which it appears, that the extra allowances in camp, are a ſufficient ballance for the extra expences; and, therefore, this additional medicine cheſt, on this plea, is unneceſſary.

Let me conclude theſe remarks with a hint at ſurgical military precedency. From the loweſt order, a regimental Mate, to the

* At a moderate eſtimate, the bed will be 10l.—a table and two ſtools, 1l.—the marquée, 16l.—theſe ſummed up, amount to 27l. 2s. This was the expence to the officers at Hopton Common in 1782.

higheſt, that of Surgeon-General, it is as follows—Regimental Mate—Hoſpital Mate—Regimental Surgeon—Apothecary to a general hoſpital—Surgeon to an hoſpital—Surgeon General.—In this line of precedency we find the Apothecary ranks almoſt at the head. It is not from the regimental Surgeons that a Surgeon to a general hoſpital is choſen, but from the apothecaries; and before the regimental Surgeon has any proſpect of ſucceeding to this rank, he muſt be degraded to an apothecary, an humble mixer of drugs. Strange, truly! I object not to the Apothecary of an hoſpital being rewarded with 200l. a year; though even this is ſtepping far beyond what is given to men of the ſame employment, out of the army. It is ſeldom the ſalary to the Apothecary of hoſpitals, out of military life, exceeds half of what is thought neceſſary for the Surgeon. It is generally thought, that there is leſs expence neceſſary in an education for this branch, than for a Surgeon. Here the regimental Surgeon is obliged to ſubſiſt on 4s. a day—the Apothecary has no leſs than 10s. with the addition of ſuperior rank. This order ought,

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in juſtice to the regimental Surgeon, to be changed. Hoſpital Surgeons, ſhould be choſen from regimental Surgeons; and men poſſeſſing knowledge of the mixture and compoſition of drugs, who have undergone proper examinations for the ſame at Apothecaries Hall, and none elſe, ſhould be choſen to fill up this office.

CHAPTER XVII.

NECESSITY OF A LIBERAL EDUCATION TO PRACTICE MEDICINE SUCCESSFULLY—REGIMENTAL PRACTICE MORE THE PROVINCE OF THE PHYSICIAN THAN THE SURGEON.

MEDICINE, though frequently termed an art, is a ſcience, and truly a very complicated one; in comprehending it, as becomes its profeſſors, every part of nature is to be ſtudied; but more particularly the animal, vegetable, and mineral kingdoms; nor is this to be done ſuperficially; nay, with more care and attention are the component parts to be ſcrutinized, and their principles inveſtigated by ſuch as wiſh to be liberally educated in it.

Strabo ſays, it is impoſſible to be a great poet, without being a man of real probity; this obſervation is, undoubtedly, not leſs applicable to the phyſician than the poet;—"can any phyſician in good conſcience venture to preſcribe a medicine, without at leaſt having formed inductions from the moſt exact analogy?—is not that man an enemy to his patient,

tient and to ſociety, who pretends to cure, without knowing, to a certain degree, the nature of the diſeaſe, both from its cauſes and ſymptoms, and its antecedent and preſent ſtate? Is it not to be wanting to every thing we owe to humanity, and even to religion, to approach the bed-ſide of the ſick, without having previouſly acquired the neceſſary knowledge? can any man ſay to himſelf, *I have* done all *I could do*, if he is unable at the ſame time to ſay, I *know all* that I *ought to know?*"—Such is the language of a celebrated phyſician, a language that muſt ſpeak to every man's breaſt, and carry conviction wherever it is heard.

A knowledge of natural and experimental philoſophy, is in a phyſician almoſt abſolutely neceſſary; nor ſhould moral philoſophy be excluded. In a word, a phyſician ſhould not only be acquainted with phyſics, *i. e.* with the works of nature in general, but likewiſe metaphyſics. I remember to have heard the ſame declaration from an illuſtrious profeſſor * to his pupils. His opinion on this head, he told them, was, that a man who was

* Profeſſor Cullen.

not

not a tolerable metaphyſician, would never be a diſcerning phyſician.

It was not his intention, by this, to inculcate that falſe ſpecies of reaſoning, which confounds the mind without enlightening it, and, like an ignis fatuus, leads farther aſtray the farther we purſue; not the ſubtile diſputations of the neceſſitarian, or the reveries on the doctrine of chance. His meaning was, if I may be thus far allowed to interpret it, that accurate inveſtigation, and chaſte reaſoning, proceeding cautiouſly from what is known, to what is unknown, or from effects to their cauſes, is the true way to arrive at the end in view, an explanation of various phænomena that preſent themſelves in the courſe of medical practice; and without ſome enquiry into the union of ſoul and body, and of their action on each other, this cannot ſo fully be done.

The ingenious Dr. Percival, in a paper written to prove the utility of experimental philoſophy, and endeavouring to wipe off a ſtigma thrown on it by the author of Hermes, ſpeaks of metaphyſics in theſe words, after telling us he had always ſtudied them with delight, " it (this ſcience) invigorates the faculties of the mind, and gives *preciſion* and

accuracy

accuracy to our inveſtigations, by inſtructing us in the nicer diſcriminations of truth and falſehood *."—"The mutual action of the body and the mind upon each other, is felt every moment. The knowledge of the nature, effects, ſymptoms, and meaſures of theſe reciprocal influences, forms no inconſiderable part of the ſcience moſt neceſſary to the *Phyſician*, the *Moraliſt*, and the *Divine* †."

In a former part of this work I have adduced facts to prove the reciprocal influence the body and mind have over each other, where I had occaſion to mention that diſeaſe diſtinguiſhed by Noſologiſts under the appellation of *Noſtalgia*. It was there ſhown ‡ that the affections of the mind were capable of inducing even fatal diſeaſes, and that many have fallen a prey to them. In Switzerland, there is a dance which the young ſhepherds perform, to a tune played on a ſort of bagpipe; the tune is called *Rance de vaches*; it is wild and irregular, yet has nothing in its compoſition that could recommend it to our no-

* Vid. Mem. of Phil. and Liter. Soc. of Mancheſter, v. II. p. 327.

† Dr. Barnes, ibid.

‡ Vid, vol. I

tice.

tice. But the Swiſs, it is affirmed, are ſo intoxicated with this tune, that if at any time they hear it, when abroad on foreign ſervice, they burſt into tears, and *often fall ſick*, and *even die* of paſſionate deſire to reviſit their native country. For which reaſon, in ſome armies, where they ſerve, the playing of this tune is prohibited *. True then, it muſt be, as the poet has beautifully expreſſed it, that

There is in ſouls a ſympathy with ſounds,
And as the mind is pitch'd, the ear is pleas'd
With melting airs, or martial, briſk, or grave.
Some chord in uniſon with what we hear,
Is touch'd within us, and the heart replies.
How ſoft the muſic of thoſe village bells,
Falling at intervals upon the ear,
In cadence ſweet! now dying all away,
Now pleading loud again, and louder ſtill,
Clear, and ſonorous as the gale comes on.
With eaſy force it opens all the cells
Where mem'ry ſlept. Whenever I have heard
A kindred melody, the ſcene recurs,
And with it all its pleaſures, and its pain. †

"Every experienced Phyſician," ſays Zimmerman, "knows that the diſeaſes of the mind will yield to no phyſical remedies, unleſs the ſoul concurs at the ſame time in re-

* Vid. Dr. Beattie's Eſſ. vol. II. p. 175.—Alſo Rouſſeau Dict. de Muſique. art. Rance de vaches.

† Cooper's Poems, v. II. p. 23.

lieving

lieving the patient. The more the ſoul of the patient ſeconds the endeavours of the Phyſician, the greater will be his hopes of ſucceſs. An intelligent and prudent Phyſician has often begun and compleated cures which ſeemed to be impoſſible. If, therefore, there are diſeaſes, in which the patience, the aſſiduity, and the indulgent attention of a Phyſician, can ſo far influence the mind of a patient, as to contribute to his cure, may we not very juſtly conclude, that the diſpoſitions of the *ſoul* may be the occaſional cauſes of changes in the *body*. It proves to us, that the paſſions, and diſpoſitions of the mind, having ſo great an influence on our health, it *behoves* the Phyſician to aim at keeping both the mind and the paſſions of his patient in order."—Another author, in his facetious and humourous manner *, compares the relation between the body and ſoul, to a coat and its lining; for, if you rumple the *one*, ſays he, you rumple the *other*.—If this be true, which almoſt every day's experience fully proves, the ſtudy of the paſſions would ſeem an indiſpenſable part of a Phyſician's education; and on this ground we aſſert, that not only a know-

* Triſtram Shandy.

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ledge of the *phyſical* but the *moral* man ſhould be acquired. Phyſicians ſeem to be more intereſted in the acquiſition of this knowledge, than any of the other claſſes of eivil life; the paſſions come in for ſo great a ſhare in *diſeaſes*, that it would ſeem criminal in a Phyſician to enter into practice, without having particularly applied himſelf to the ſtudy of man."

It is by " nice diſcrimination," by rational inveſtigation, and preciſion, that we may hope to diſtinguiſh what is *true* from what is *not*, and thus purſue our reſearches ſucceſsfully; and the farther we recede from this plan, the nearer we approach to empyriciſm. As far, then, as metaphyſics can aſſiſt us towards this end, ſo far they are uſeful; for though an empyric may occaſionally be ſucceſsful in his practice, yet it is but reaſonable to conclude, that nine times out of ten he muſt miſs his aim. A blind man cannot diſtinguiſh colours, nor he that is deaf, the harmony of combined ſounds in muſic; neither can an effect be removed when the cauſe lies concealed, except by mere chance, on which no wiſe man will ever build his dependance.

Some

Some may anſwer, that the moſt acute inveſtigations of the beſt cultivated underſtandings, will frequently fail in finding the real cauſes of certain phænomena, that preſent themſelves in the cultivation of medical ſcience, and in practice ; or when found, that they are as far from being able to remove the maladies induced, as if unknown and undiſcovered. This is granted ; but if the informed may, and often do, the uninformed in ſuch intricate caſes muſt neceſſarily fail. But it ſhould be remembered, that in conſequence of their ignorance, in caſes where the literary and more enlightened man would ſucceed, they will as aſſuredly err, unleſs accident turns the ſcale in their favour.

It is true, experience will teach us on ſeveral ſubjects, where reaſoning could have none, or but little effect ; but let this maxim be conſtantly kept in view—to *reaſon*, as a practitioner, and practice with *reaſon*. Experience, we know, proves, that ſcammony will purge, that arſenic will poiſon. It tells us alſo, that neutral ſalts, as well as ſeveral other ſubſtances of the mat. med. will do the ſame. By reaſoning alone, perhaps, we never could have been able to diſcover this. The experience

that

that taught us the purgative qualities of medicine, teaches at the ſame time their different modes of operation; it points out, that the one acts mildly, while the other is highly irritating and draſtic. But when, in certain circumſtances, we are about to make a choice, which to prefer, we call in reaſoning to our aid, which we build, indeed, on this experience. After inveſtigating the cauſe, we make an eſtimate of the power to be applied for its removal, with a due allowance for conſtitution, and the preſent ſtrength of the ſyſtem. It is this that determines the choice we are about to make: it is this that cautions us againſt the uſe of the one, while it acquieſces in, or enforces the uſe of the other. It is by this that we are informed, that a promiſcuous application of them, though both ſeem to produce the ſame effects, *i. e.* prove cathartic, would be very detrimental, and highly injurious.

This, it will be ſaid, is ſtill in part reaſoning from experience; I grant it; and, wherever it will apply, we ought to have recourſe to this guide; but many circumſtances will preſent themſelves, wherein we ſhall not have it in our power to appeal to the deciſion

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of this judge. Here we muſt reſt ſatisfied with a leſs certain method; our reaſoning muſt now be drawn from analogy; from ſubjects where we can trace a degree of ſimilarity, and our concluſions muſt be formed accordingly.

"As a Phyſician," ſays a learned author, "is not always able to chuſe his method of treatment, and as many accidents may occaſionally vary the appearance of a well known diſeaſe, it will be neceſſary to have recourſe to analogy: and how can any man give the neceſſary ſcope to his enquiries on ſuch an occaſion, who is not able from his reading," (his knowledge) "to draw together all the lights, which different authors may afford him on the ſubject?"

Analogy, indeed, may not on every occaſion be a ſafe and unerring guide, nor univerſally afford us confidence of ſucceſs; but ſurely it will be preferable to blind chance, which begets raſh practice.—A ruſh taper is better than total darkneſs.—On the whole, we muſt have a proper notion of the nature of the affection, and the powers to be applied for its removal, before we can venture on rational grounds to attempt a cure.

An empyric ſays to a perſon with a complaint in the organs of hearing, " Sir, you muſt apply bliſters ; I know from experience, they will remove affections of the ears."—If a ſecond conſults him, the ſame remedy is propoſed ; and the ſame to a third, a fourth, &c. —for, in fact, he poſſeſſes but one remedy for all the varieties of the diſeaſes of this organ, though ariſing from the moſt oppoſite cauſes ; in one, perhaps, from ſome mechanical cauſe, as from Cerumen hardened, and plugging up the meatus ; in another, from an inflammation of the membrane lining the ear ; in a third, from a caries of the bone of the ear itſelf ; and in a fourth, from ſome affection of the portio mollis, or branch of the auditory nerve, that is ſpread over the windings of the cochlea.

It would be abſurd to ſuppoſe, in theſe different examples, that one and the ſame method of treatment could ſucceed ; nor would any man, informed in his profeſſion, and who had taken pains to inveſtigate the cauſe, ever recommend it. He founds his cure on a knowledge of the parts concerned, and the nature of the affection ; and ſhould his practice not ſucceed, he can with tolerable confi-

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dence point out the obſtacles to the patient's recovery; or ſhow why the diſeaſe is ſeated beyond medical aſſiſtance.

I entirely agree with an author, often mentioned in theſe pages, when he ſays, "there are certain practitioners more blameable than the empyrics." The reaſon he gives is, that though they go by the name of regulars, they ſeldom or never employ inveſtigation, or reaſoning on the ſubject of their profeſſion. He continues, "all their ability ſeems to conſiſt in copying formulæ.—Then follow a few examples, ſomewhat ſimilar to thoſe already advanced.—"A girl comes to them," he ſays, "with chloroſis; they give her ſome cooling medicine, becauſe there is a fever. A pregnant woman complains of retention of urine, and they give a diuretic; they are ignorant that it is the fœtus that preſſes on the neck of the bladder, and that a diuretic may be fatal in ſuch a caſe. Theſe people not only *do not ſee* the chain of circumſtances that occaſion a diſeaſe, but they are ſtrangers to every one of them. Shall I ſay what I think? The Phyſician who ſees all the circumſtances of a diſeaſe, and he who ſees only a part of them, or rather his own prejudices, muſt neceſſarily

be of different opinions ; and yet they will both *ſwear* by their *experience*. A man defends, even to his lateſt moments, that which he thinks he has ſeen, without aſking himſelf whether he was capable of ſeeing. A drunken man ſwears that every thing dances around him ; a ſuperſtitious man believes in magic ; a little mind dreads apparitions : all theſe ſpeak from *experience*, fancying that it is from *experience* they have learned all things. The Phyſician who has diſcovered the ways of nature, and follows her in them every day, and the old nurſe who is directed by this Phyſician, both appeal alike to *their experience*, and the former very properly ; but ought any one to appeal to his experience who does not poſſeſs a proper talent for obſervation ?---Is it by a blind practice, with a few receipts, and many prejudices, that we ſee nature ?"---- certainly not.----She muſt be traced by careful inveſtigation.

It is acknowledged, that many caſes will occur, where we can only apply the means of relief to obviate particular ſymptoms ; and where the cauſes of the affection cannot be diſcovered during the patient's life. Our knowledge of the ſtructure and functions of ſome parts

parts of the body is yet in its infancy; we know little of the uſes of the ſpleen, and almoſt as little of the nervous ſyſtem. Perhaps the progreſs of ages in philoſophical inveſtigations, be it ever ſo induſtrious, will fail in finding the cauſes of the various affections of the nerves, of their modification, and manner of operating; or tell, with certainty, where the percipient principle has its ſeat, whether diffuſed equally over the whole, or if it places its reſidence in a particular part; or wherein lies that connection ſo intimately uniting the ſoul and body, giving them that reciprocal action which has lately been taken notice of, or how that mutual ſympathy takes place which ſo invariably prevails between them.

The moſt ignorant Quack, however, reaſons, but he reaſons badly. If the reaſonings of the *ſyſtematic*, with every advantage of education in his favour, fall, and indeed, muſt ſometimes fall ſhort of the truth, what is to be expected from the other?

" Baron Haller informs us that Boerhaave, who even to his ſeventieth year, had, in general, devoted ſixteen hours every day to the ſtudy of his profeſſion, often complained of

extreme difficulties, and of people who were daring enough to practice without having ever ſtudied, or reflected in their lives." Reaſoning then, and reflection, I am perſuaded, will be found not only highly neceſſary to the medical practitioner, who wiſhes to be uſeful to ſociety, and an honeſt man, but altogether *indiſpenſable*.

As to moral philoſophy, I mean a knowledge of the operations of the mind; this, and the philoſophy of phyſic, ſeem to be intimately allied in ſome of their parts, and like the ſhades of a picture, ſlide inſenſibly into one another.

With reſpect to what ſeems more immediately in the Phyſician's line, no man can, on rational pretenſions, profeſs to remove the diſeaſes of the body, who is unacquainted with Pathology; and this muſt lead to the ſtudy of the human ſtructure; he muſt know the functions of the different organs in health, as far as they can be known, before he becomes a judge of the defects he obſerves, or is qualified to attempt a reſtoration of them to their natural condition. The ſtudy of anatomy is the work of time; it cannot be comprehended without labour and cloſe application. On this the

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foundation is to be built; it is the ſupport of the future fabric.

In a former part of this work* I have ſpoken more fully of the advantages that reſult to the medical practitioner from his acquaintance with the component parts both of man and other animals; for comparative anatomy is far from being an uſeleſs ſtudy; ſeveral of the parts in other animals may be more particularly traced, and better inveſtigated than the ſame parts can be in man, and analogy will occaſionally teach him to draw the ſame concluſion relative both to the ſimilarity of functions and ſtructure.

In the light of conveying true knowledge to build future practice on, anatomy is one of the principal key ſtones. In the light of conveying a knowledge of the power and wiſdom of omniſcience, the Creator of all things, and proving the exiſtence of an allwiſe, and powerful Firſt Cauſe, it muſt afford one of the moſt ſtriking proofs. Hence it would ſeem impoſſible, that an Anatomiſt can ever be a Polytheiſt, much leſs an Atheiſt. ---It teaches us, then, religion, and veneration

* Vid. vol. I. ch. 7.

towards the Supreme Being, while it aſſiſts us in removing the maladies that " *Fleſh* and *Blood* are heirs to ?"

Galen, a name well known in phyſic, was a Polytheiſt till he ſtudied anatomy ; on conſidering the various uſes of the Hand, and reflecting on the beauty, regularity, and wiſdom of its ſtructure, he was compelled, as it were, to believe in the *one living God.* He called out as he examined it, in a kind of extacy, *Behold ! this is the work of works !*— after his converſion, brought to paſs in this manner, he compoſed a Hymn on the ſubject, it conſiſted almoſt entirely of praiſes on the hand, and an enumeration of the uſes of this part of the human body.

From the ſtudy of the ſtructure, the ſtudent muſt proceed to the uſes of the parts he has thus examined. Phyſiology, a name which has been given to this ſtudy, is no leſs complicated. When we conſider the numerous tubes of various ſizes, ſtructure, and uſes ; the different fluids, formed by peculiar organs, and fitted for particular purpoſes ; the various glands, with their different ſecretions, all adapted to different ends, and regulated by the juſteſt laws ; the more ſolid parts of

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the fabric, as the bones, cartilages, tendons, ligaments, &c. for giving ſtrength and motion to the machine; with the manner of their nutrition and natural decay, it will evidently appear, that this ſtudy is none of the leaſt complicated.

Pathology, or the ſtudy of the deviations of theſe organs from health, muſt be founded on this. When he is well inſtructed here, and in anatomy, he is yet far from having finiſhed his taſk; if he ſtops here, it were as well he had never begun. In comprehending the modes of action of ſeveral of the organs, it will appear how neceſſary a knowledge of natural and experimental philoſophy muſt be.

Before he can comprehend the functions of the Eye, he muſt have previouſly ſtudied the doctrine of light, and colours; and this will require a certain portion of mathematical learning. At firſt view it may ſeem abſurd to maintain, that mathematics are neceſſary to the ſucceſsful practice of medicine; yet this example alone, were we to advance no other, would be ſufficient to prove it.

But the diſeaſes of the Ear are as much the Phyſician's province, as thoſe of the eye; yet before

before he can obtain a juſt knowledge of this organ, he muſt make himſelf acquainted with the medium through which ſounds are communicated; the properties of the air muſt therefore be inveſtigated, as far as it is concerned in communicating this ſenſation. This is a branch of natural philoſophy, to which the name of Pneumatics has been given, and is equally as indiſpenſable as the foregoing.

Hydraulics, and Hydroſtatics have, in like manner a reference to the human frame, in as far as the body is a compound of tubes containing circulating fluids, and having a ſimilitude to fluids conveyed through tubes out of the body, making *a due* allowance for animate, and inanimate matter, the moving powers, the coheſion of parts, and their viſcoſity, with their ramifications, angles, friction, and other cauſes of retardation. This is another wide field, requiring an acquaintance with mathematical, and experimental philoſophy.

Chymiſtry teaches many things reſpecting the animal machine, as well as the properties of thoſe parts of nature, *i. e.* thoſe ſubſtances, employed in the removal of diſeaſes.

Heat

Heat is ſomething, without which, in a leſs or greater degrèe, animal life cannot for any time exiſt; chymiſtry ſeems to afford us the beſt knowledge of this. By heat we may be ſaid "to live, breath, and have our being." Beſides this, it teaches likewiſe various other operations, and proceſſes neceſſary to be inveſtigated by the medical enquirer.

By chymiſtry he can give or take away at pleaſure, certain properties from ſubſtances, which enables him to produce particular changes on the human body. We omit mentioning its great utility in the arts, by which life has been rendered ſo comfortable, being leſs connected with our preſent ſubject. To this part of philoſophy, then, the Phyſician is greatly indebted.

The nature of the Air, alſo in a different ſenſe, from that of conveying ſounds, *i. e.* in as far as it becomes noxious and wholeſome; or ſalubrious, and vivifying to animal life, is another material branch, a knowledge of which we derive from chymiſtry. It is by this, among other things, we have been able to detect the qualities of the various ſpecies of *Gases*, or elaſtic fluids. We no longer now ſtand in ſtupid wonder at the death of a dog,

held over the Grotto del Cani, or ſeem amazed at the noxious effects of the fumes of charcoal, or the dire exhalations that often ſuddenly deprive the unſuſpecting Miner of his life. The nature of fixable and inflammable air is at length, by the aſſiſtance of chemical analyſis, and fortunate experiment, well known, and has opened another ample field of uſeful inveſtigation.

By the ſame branch of ſcience, in like manner, we obtain information relative to another fluid, not leſs eſſential to the health of the human race; I mean Water. If the various changes of the air materially affect the living body, the various admixtures found in this Element, as well as the many ſpecies of which, from this cauſe, it conſiſts, have no leſs a ſhare in producing noxious or ſalutary effects. By chymiſtry, we can make it our antidote or our poiſon; it detects the principles on which theſe depend, and compounds, or decompounds it at the Phyſician's will, rendering it ſubſervient to his intentions. This is an extenſive ſtudy; but without a competent idea of it, how limited, how imperfect muſt be the medical practitioner's ſkill!

From

From a knowledge of the effects of heat and moiſture on the human body, when conjoined, he learns the remote cauſes of ſeveral fatal diſeaſes; he reaſons on the ſedative powers of contagion, and becomes the better enabled from ſuch inveſtigations to apply his method of cure.

Many of the changes in the vegetable world, ſeem likewiſe to be produced by chymical laws*. With this aſſiſtant we may diſcover

* A late writer of reſpectable abilities, in an eſſay on the ſtudy of natural hiſtory, complains that not only Mineralogy, but Chymiſtry, is leſs attended to with us, than with ſeveral of the neighbouring nations. In Sweden and Germany, Mineralogy forms a diſtinct and honourable profeſſion, like the Divine, the Phyſician, or the Barriſter. In theſe countries they have colleges for regularly teaching it. The Ruſſians and Spaniards have lately adopted this plan; the French, likewiſe, have formed a Mineralogical School at Paris; and perſons are employed in tracing ſubterraneous maps of the whole kingdom of France, and Mineralogical voyages have been taken at the public expence; yet England has paid, hitherto, little attention, comparatively, to this ſtudy. Though our own country is allowed to be richer than France in mineral productions; it has been chiefly confined to a few gentlemen of the medical profeſſion *. "Even chymiſtry," ſays he, "which we ſhall attempt to ſhow is the parent of Mineralogy, has ſcarcely been attended to in England, whilſt neighbouring nations have purſued it with enthuſiaſtical

* Vid. Kirwan's Elem. of Min. p. 28.

diſcover ſeveral of the properties of plants; we may ſeparate their parts, and reject or chuſe that which ſuits beſt with our intentions.

A knowledge of this part of nature makes another branch of medical ſcience. Many of the articles uſed by the practitioner are derived from the vegetable world. Botany, therefore, or a knowledge of plants, whether reſpecting their external figure, or internal qualities, cannot be diſpenſed with by the ſcientific Phyſician. Under this head I com-

thuſiaſtical ardour. It forms the favourite occupation, and moſt faſhionable object of attention, not only of the middling, but even of ſome of the higheſt ranks of ſociety."—Amongſt theſe, ſays Mr. Kirwan, we may reckon in Ruſſia, Prince Gallitzin; in Germany, Count Sickengen; in Italy, the Counts de Saluces, de Morrozo, and the Marquis de Gironi, governor of Leghorn; in Geneva, Mr. de Sauſſure; in France, the Dukes de Chaulnes, Rochefoucault, and D'Ayen; the Counts de Lauraguais, la Geray, Milly, Treſſan, and De-la-Tour d'Auvergne; the Marquiſſes de Courtenvaux, and de Courtinvron; the Barons d'Olbach, and de Servieres; Meſſieurs Trudaine, Lavoiſier, Montigny, de Morveau; and among the Ladies, Madame la Preſidente d'Arconville: to this liſt we may add the Earl Dundonald, in Scotland, and Mr. Kirwan, in England *;" ſeveral others in Great Britain may certainly be added to theſe two gentlemen, though they may not appear amongſt the moſt conſpicuous.

* Dr. Kentiſh, on Nat. Hiſt.

prehend that ſtudy, known by the name of Materia Medica, which teaches the manner of preparing the ſubſtances obtained from the vegetable world, for medical purpoſes, and points out their qualities, or the doſes in which they are to be exhibited. The former leads him by the hand, as it were, to the plant; the latter prepares it for exhibition. This is a branch of uſeful ſtudy, and one, which unluckily, is by the generality, even of ſenſible, and otherwiſe literary practitioners of late years, too much over-looked; I mean the Materia Medica. For botany, as an amuſing part of ſcience, is more attended to.

The ſtudy of the vegetable kingdom, in another view, is not only curious, but highly intereſting; it enlarges our ideas with regard to the operations of nature, and conducts us forwards in the ſcale of ſcience. Till lately this branch alſo was little cultivated; but ſince philoſophers have turned their attention this way, every day's experience proves more and more its conſequence to the exiſtence of life. We are not only ſupplied from thence with food and medicine, but it has its effects in a ſpecial degree on the atmoſphere with which

which we are ſurrounded ; it ſeems to be the chief reſtorer of the ſalutary quality of the air. After it has been rendered noxious by various phlogiſtic proceſſes, it dephlogiſticates *, and renders it once more fit for reſpiration ; it drinks up, and is even nouriſhed by what would deſtroy man, and returns it to him again, like gold, as it were, from the refiner's furnace, newly combined, and newly modified. Here we find putridity has its uſe, and through the medium of the vegetable kingdom, becomes the foundation " of that which is pure." This is a beautiful link in the laws of the creation, and the exiſtence of the world. It is a law founded on wiſdom ſupreme, that as ſoon as one principle becomes unfit for certain uſes, it is only then rendered fit for its deſtined functions in another part ; here is order ſpringing from confuſion, and beauty from deformity. It is the work of God !—

I need not mention here the mineral kingdom ; it is evident the medical enquirer muſt

* This term firſt introduced, as is well known, by Dr. Prieſtley, is now called *oxygination*, by the new nomenclature ; phlogiſticating, is alſo by the ſame termed *azotiſying*.

not

not overlook its inveſtigation, ſince it affords him ſeveral of the moſt powerful of thoſe articles by which he effects his purpoſes. This is alſo a branch which will require his attention; but, perhaps, this may be in a great meaſure comprehended under the head of chymiſtry, which we have already endeavoured to point out as an indiſpenſable ſtudy.

Natural hiſtory he will likewiſe find of importance; it will aſſiſt in explaining ſeveral of the operations of nature, and farther enlarge his ideas. I mean ſomething more by it however than a mere arrangement and claſſification of the different articles uſually comprehended under this term. He muſt inveſtigate the cauſe that gave exiſtence to many of theſe productions. This may lead him to conſider the formation, not only of the earth, but the earth itſelf. It will teach him in a more medical view, both the animals and the climates, each claſs inhabits, with ſomething of their variety and nature.

In a word, as all the parts of ſcience have a relation to one another, and all ultimately aſſiſt in explaining the properties of animal life, and the diſeaſes to which every thing "that breathes the breath of life" is ſubject-

ed, it behoves him who is engaged in the removal of them, and profeſſes to alleviate the tortures of pain, to be duly converſant with all. But as the life of man is ſo limited, and the various ſtudies mentioned ſo complicated, that the longeſt period of mortality is far too ſhort for the intimate comprehenſion of the whole, a general, or more ſuperficial knowledge is all he can aim at, is all he can hope to attain.

In our proceedings here, however, we ought always to beſtow more time and attention on thoſe branches that have a nearer relation to the chief point, than to others, which are ſecondary only, and may be called more ornamental than uſeful; hence I have paſſed over ſeveral, that if a medical man has leiſure to cultivate, it will be well for him to purſue.

Electricity we have already mentioned; but it is more than one of thoſe ornamental branches; it is among the indiſpenſable parts of a Phyſician's education; and this will readily be granted, when, not only the principal rank it holds in the univerſe, and its great agency in nature, but even its applica-

tion

tion more immediately to the diſeaſes of the body, are conſidered.

Noſology I have likewiſe left untouched, a ſtudy however, which the Phyſician will find of no ſmall importance in his diſtinction of the various maladies incident to man. To find out the diſeaſe under which our patient labours, is one great ſtep towards the cure, and one not, on all occaſions, eaſily attainable; it is the province of noſology to teach this, as it enumerates the leading ſymptoms that characteriſe it.

And notwithſtanding what ſome even of the learned ſay of its inutility, I mean, of dividing diſeaſes by its aſſiſtance into claſſical order, I am perſuaded, it will be found of no little moment to the practitioner at the bed ſide of his patient. The ſtudent will certainly find his account in it; his memory will be aſſiſted by a noſological arrangement. Hold it in the light of only a common-place book, and its uſefulneſs muſt be manifeſt; but it will do more, it will be found applicable in practice.

Diſeaſes are ſometimes as truly marked, as the writers on this ſubject have repreſented them. Syſtematic arrangements have proved

uſeful to the progreſs of botanical ſtudies, and in other branches of natural hiſtory, and I can find no ſufficient arguments for rejecting them in medicine. I am inclined indeed to conſider them as equally advantageous here.

The doſing of medicines, which is termed *Poſology*, demands alſo the medical man's conſideration; ſomething has already been advanced on it in a former part of theſe obſervations *. To learn the more common doſes of the various articles exhibited in diſeaſes, as they are given in different authors, will require attention and time. To know this branch as far as books can teach it, is neceſſary; but no book can lay down infallible rules here. All they can do is, to inform us of the quantities that have been exhibited. The different articles in uſe become different medicines, according to the quantities, and the time in which they are adminiſtered. Thus, ipecacoanha given in a ſmall quantity will prove cathartic; and in a larger, emetic. Rhubarb in ſmall quantities becomes aſtringent, if given at proper intervals; in larger, it purges, &c.—The knowledge

* Vid. vol. I. ch. 6.

then

then of the doſe muſt depend on a knowledge of the affection, and on proper views of the animal œconomy, with a knowledge of the idioſyncraſy, and preſent ſtrength of the habit; from which it muſt appear, that no general rules can hold good, but that the doſe muſt be varied as exigences require, to bring the diſeaſe to a termination; all which muſt be calculated at the bedſide of the patient, and the quantity adapted for the preſent individual, and the preſent moment of that individual's complaint.

After what has been ſaid on the foregoing ſubjects, it will be unneceſſary to mention regimen in diſeaſes, as a knowledge of it is founded, like the doſing of medicines, on a knowledge of theſe. It is a part, however, that ought to be conſidered as of more importance in reſtoring the ſick, and valetudinarian to health, than I fear is generally done. There is no part of the ſcience of healing, wherein a man ſhows his judgment more, than in the regimen he lays down for his patient. In moſt of the chronic diſeaſes, and theſe are very numerous, he may do as much, if not more by this, than by his preſcriptions made up at the apothecary's ſhop. But to bring to

paſs the great end in view, both muſt be judiciouſly united.

By regimen, I mean to comprehend not only diet, *i. e.* meat and drink; but the ſtate and temperature of the air, cloathing, exerciſe, ſleep, and watching; the juſt regulation of the ſecretions, and excretions, and in a word, "quid ferant vires, et quid non."—In this the former habits of the patient are carefully to be conſidered. Much might be written on the ſubject of regimen; but it is not our buſineſs to enter any farther into it here, than juſt to point it out to the medical practitioner's notice, as being a part comprehended in his medical education.

Though bathing be none of the articles which can be noticed in a pharmacopæia, it may nevertheleſs be termed an active medicine, and one from which, much good, or much miſchief may accrue, according as it is applied. I know not whether it can be ranked in the claſs with thoſe things we more ſtrictly call *regimen*. But rank it where you will, it demands attention, and no ſmall ſhare of judgment to adviſe it with propriety, and modify it with medical diſcernment.

Nothing,

Nothing, now-a-days, is more common than bathing, and no part of medicine, perhaps, more indiſcriminately, and, it is to be feared, more injudiciouſly, in the greater number of inſtances, made uſe of. This will be ſufficiently proved, from the promiſcuous uſe of *evacuations* recommended to bathers, previous to their going into the bath. If the caſe be ſuch as is proper for bathing, it muſt be ſuch as excludes all debilitating cauſes; and ſurely purging, called, for I know not what reaſon, *preparation* for bathing and drinking the waters, is one of the moſt powerful. Both bathing and drinking are under proper reſtrictions tonic powers, the latter gently ſtimulating and invigorating to the habit, and the diſeaſes requiring them are conſequently thoſe of debility; it muſt appear, then, that this debilitating courſe muſt be contrary to juſt reaſon, and true medical philoſophy. But to know when, and how to apply theſe, like regimen, requires a previous acquaintance with the animal œconomy in all its parts, and a knowledge of the diſeaſes then under conſideration. Much may depend on the regulating the temperature of the water; the preſent ſtrength of the habit;

the time of the day for bathing; the length of time to continue in the water; whether the patient ſhould bathe early in the morning, and with an empty ſtomach, or if a certain quantity of food ſhould be allowed; how often he ſhould go into the water in a given time; all demand ſerious reflection. An error in theſe muſt tend to the patient's hurt inſtead of his welfare. On this part alſo, much might be ſaid, but it does not in this place fall any farther under our cognizance, than to point it out as highly deſerving the medical philoſopher's notice, and ſhowing him the importance of its conſideration in the courſe of his ſtudies.

I have hitherto ſaid nothing relative to Languages. In a Phyſician, a claſſical education is altogether indiſpenſable; but this we have always ſuppoſed a point incontrovertible, and that the ſtudent is well acquainted therewith, before he enters on the more material parts of his medical education. For though languages may only be conſidered by many as the ſhell, the external cruſt of education, which teaches words without ideas, ſounds without things, yet before we can with advantage proceed farther, it is incumbent on

us

us to penetrate here. Our literature muſt be greatly confined, if we can only read philoſophy in our native tongue; and though we may at length learn by tranſlations, yet it will come late; half the world will have the ſtart of us: like a lame horſe we may hobble after, but we can never come up with the chace.

Some of the modern languages are almoſt indiſpenſable to the Phyſician. French is not only the polite, but almoſt the univerſal language of Europe, both with the philoſopher and the gentleman. "By a proficiency in languages, other ſtudies are with more facility acquired." One of which never, on any pretence whatever to be omitted, is Latin. This, though a dead language, "ſpeaketh to all men." It is more particularly the language of philoſophers than any other; every medical author, almoſt, who wiſhes his labours to extend, ſends them into the world in this dreſs. This we find often practiſed in Britain, as well as on the Continent; nor is it a ſuperficial knowledge of it, medical men ought to poſſeſs; they ought to have a critical diſcernment of its beauties; for as they ſhould ſpeak it with ſome fluency, ſo they ſhould write

write it with tolerable correctneſs, neither of which can be well performed, unleſs their proficiency in it has been carried thus far.

Although we have few authors in Greek, of much importance, (for the works of the ancient phyſicians, even of Hippocrates, are not at this improved period of medical knowledge held in ſo great eſteem as heretofore, ſince the introduction of experiment in this ſcience) yet this language ſhould by no means be overlooked. Many Greek phraſes are to this day retained; many of the names in uſe, both in chymiſtry and anatomy, as well as in other branches of philoſophy, are derived from thence; and to be unacquainted with their origin, would be unpardonable.

From what has been ſaid, it will appear, that he who turns his attention to the practice of phyſic, ſhould begin at an early period of his life to direct his ſtudies to this end, ſince an education, ſo large, ſo extended, is required, before his purpoſes can be properly accompliſhed *.

Beſides,

* The genius, and induſtrious application of ſome men will make amends for deficiencies here. Boerhaave, was upwards of thirty when he turned his thoughts to the ſtudy of

Beſides, the mind is then retentive of impreſſions, and, if well directed, will afterwards proceed in the proper path; or, to uſe the words of a modern poet, ſpeaking of the importance of youth well directed, in forming the learned as well as the virtuous man *.

'Tis granted, and no plainer truth appears,
Our moſt important are our early years;
The mind impreſſible, and ſoft, with eaſe,
Imbibes, and copies what ſhe hears and ſees;
And thro' life's labyrinth holds faſt the clue,
That education gave her, falſe, or true.

When a man has finiſhed what is called a liberal courſe of ſtudies, a polite education, ſuch as entitles him to a Maſter of Arts Degree, he is only *then*, and not before, properly qualified to enter on the more extended ſtudy of medicine, which ranges in a yet wider ſphere, turning its views to all nature.

of which we are ſpeaking. It was ſeldom, however, he laboured leſs, as has already been ſaid, than ſixteen hours a day, throughout the greater part of his life after. He was bred indeed to the church, and had more than a ſuperficial idea of ſchool and univerſity knowledge; hence his preliminary education was claſſical and complete.

* Cooper's Poems. Vol. I. p. 59.

Nay

Nay, it is the opinion of a learned author, that to complete the education of a Phyſician properly, an education extenſive beyond all others whatever, he ſhould poſſeſs a tolerable notion of the law----and " this," he adds, " to complete the character of general and extenſive knowledge; a character which their" (Phyſicians) " profeſſion, beyond others, has remarkably deſerved *."

Such is the outline of a Phyſician's education; ſuch are the great objects he has to graſp at; ſuch his education ought to be; and ſuch, we hope, it is for the moſt part found to be.

A recommendation, comprehending ſo many objects, and ſome of them that may ſeem, at firſt ſight, altogether foreign to the ſcience we have chiefly in purſuit, will be little reliſhed by thoſe, if any there are who may think a few months of one or two winters at the lectures of ſome medical teachers, whether in the metropolis, or an univerſity, with a few years of an apprenticeſhip in ſome apothecary's ſhop, are ſufficient credentials to recommend them, as able practitioners, to the notice of the public. The credulity of

* Vid. Blackſtone's Comm. on the Laws of England. Vol. I.

our

our countrymen too often leads them to believe ſo;---a credulity, which one would ſuppoſe endemial to Great Britain, and ſome of her appendages; for it is in theſe only, of almoſt all other parts of Europe, where empyriciſm and credulity of this nature ſeem to hold their ſovereign ſway.

"The Phyſicians in Chili," we are told, "blow around the beds of their patients, to drive away diſeaſes.---The people there think that phyſic conſiſts wholly in this wind; and their *Doctors* would take it very ill of any body, who ſhould attempt to make the method of cure more difficult. They think they know enough, when they know how to blow *."

But it will be ſaid, what has all this to do with regimental Surgeons? Our buſineſs, in theſe pages, was not to diſplay the qualifications neceſſary for the Phyſician, but to point out the duties of the regimental practitioner. The more obvious parts of education, it will be ſaid, are ſufficient for him, ſince his buſineſs is more with external than internal diſeaſes.

* Vid. Zimmerman.

May it not be expedient to enquire into the truth of this poſition, and examine whether a regimental practice partakes moſt of phyſic, or, of what is commonly called ſurgery?

Something has already been ſaid on the ſubject; and when every circumſtance is maturely weighed, it muſt only ſerve farther to confirm the opinion, that the regimental practice requires more of the Phyſician's than the Surgeon's aſſiſtance; it muſt therefore follow, that the place ſhould be ſupplied, not out of the number of the latter, as is moſt commonly done, but from the former; and, on this ground, the ſketch we have offered of a Phyſician's education is tenable.

On examining the diſeaſes that are moſt prevalent among ſoldiers, and in regimental practice, we find the far greater number of them to be, ſuch as fall under this particular province.

The following may be enumerated among the Pyrexia. Fevers of all the different kinds. Typhus, Synochus, Intermittents, and all their variations, as remittents, &c. Every one knows the attention we ought to pay to the claſs of fevers; they appear at

leaſt three times for once of moſt other diſeaſes, and prove as often fatal. Among the Phlegmaſia, we may reckon Ophthalmia, and even Phrenitis; this may, and does ariſe in the army, from too much expoſure to the rays of the ſun, or what is termed Inſolation. Cynanche tonſillaris; Cynanche maligna, a very fatal, and no infrequent diſeaſe. Cynanche Parotidea, Cyn. Pharyngea. I paſs over the Cyn. Trachealis, or Croup, as leſs frequent and more peculiar to children. Peripneumonia, Pleuritis, both frequent in the army. Gaſtritis, Enteritis, Nephritis, Rheumatiſmus, both of the acute and chronic ſpecies. As this diſorder always ariſes from cold, and as the nature of a ſoldier's life is well underſtood, I need not ſay how frequently it is to be met with amongſt ſoldiers.

Of the Exanthemata, we may enumerate the following; Eryſipelas, Variola, Rubeola, Scarlatina: I paſs over the miliary fever. Among the Hæmorrhages, Epiſtaxis, Hæmoptyſis, and its ſequela Conſumption, another diſeaſe very frequent, and almoſt always fatal. I ſay, almoſt *always* fatal; for by the preſent faſhionable modes of life, irregularities, and late hours, &c. it is often induced, and but

ſeldom

ſeldom we find it cured. As the important part in the obviating, or removing of all diſeaſes, is the beginning; and as this complaint, particularly, creeps on ſlowly, and without giving ſuch uneaſineſs as to create alarm to the patient, it has generally arrived to a growth, difficult by the moſt judicious treatment to be ſtopped, before any aſſiſtance from the faculty is ſought for, and is, I fear, too often confirmed and rendered paſt remedy, by the injudicious treatment that many of theſe unfortunate patients experience from thoſe into whoſe hands they reſign themſelves. Indiſcriminate bleeding, purging, and a low diet, are the means in general uſe, even among the greater number of the regular and well-informed practitioners.

" Miſtakes in medicine always entail miſchief. The danger of bad treatment never appeared more fully than in that dreadful endemic, of this iſland, the Pulmonary Conſumption. Thouſands have been literally ſent to the grave by the lancet and low diet. And innocent as milk may be, it has, in the hands of medical men, been converted into a moſt deſtructive poiſon. Falſe notions of nouriſhment have given riſe to falſe medical practice;

practice; and practitioners have imagined that they were ſupporting their patient, whilſt they were feeding his complaint *." This is a diſeaſe, wherein regimen in all its parts ſtrictly adhered to, and judiciouſly laid down, in which I include a *nice attention* to the temperature of the air, and its ſalubrity, can do more than all the drugs ever adminiſtered in it.

" Medicine is but a ſecondary aid---a ſubſtitute for the natural powers of food, of diet, and of regimen.---Unhappily, however, Phyſicians have reverſed the view, and, inſtead of conſidering that the exiſtence of the body in diſeaſe, as well as in health, is ſupported by the ſame agents, they have ſought for the cure of diſeaſe on different principles---they have ranſacked the three kingdoms of nature, and laboured in the very elements for their imaginary powers of phyſic---with what ſucceſs the preſent ſtate of practice, and uncertainty of cure, may tell.----" I mean not," continues this author, " by theſe obſervations to debaſe my profeſſion----on the contrary, I mean to inſiſt upon an important truth, and wiſh to turn the attention of patients and Phy-

* Dr. Kentiſh.

ſicians to their proper objects. If both do not attend alike to the habits of life, neither can be benefited; the patient cannot derive relief, nor the Phyſician credit.---When we act in concert with nature, we have much in our power---when we contradict her indications, all is miſchief."----Many obſervations might be made on the preſent mode of treating Conſumption, but this cannot be entered on here. That it is a diſeaſe frequently occurring in the army, and requiring the ableſt of the profeſſion, whoſe exertions too often fail, is all we want to eſtabliſh.

But to return:---Cyſtirrhæa, Hæmaturia, Hæmatemeſis, fall likewiſe under the Phyſician's department; and among the Profluvia, Dyſenteria, and Catarrhus, both chronic and acute; here I alſo place that infectious ſpecies called Influenza, on which the reader will find a few obſervations, ſubſequent to this chapter.

Among the Neuroſes, Paralyſis; Syncope; Epilepſia; all which frequently take place; palpitatio---Aſthma: I paſs over Hypochondriaſis and Dyſpepſia, as rarely occurring. Pertuſſis ſometimes occurs; Colica often, and

is

is never without danger; Cholera; Diarrhea; which as often prove troubleſome.

Among the Cachexiæ, I have met with Atrophia in the army. Among the Aquoſæ, Anaſarca; Aſcites; Hydrothorax. Among the Impetigines, Scrophula; Syphilis. This laſt, as may be ſuppoſed, from the unreſtrained uſe of unclean women, is very frequent. Scorbutus is likewiſe to be found in the army as well as at ſea; it may happen even in England. During the war preceding the laſt, it appeared among the French priſoners at Wincheſter, with all its malignity, though they had been four or five years at ſo great a diſtance from the ſea coaſt *. It appears very frequently in beſieged towns; for example, at Minorca, in the late war, and ſeems to have been one of the chief cauſes of the ſurrender of the troops to the enemy. Lepra likewiſe appears, and Icterus, which I have often met with.

Among the Locales, we may place Gonorrhea, one of the moſt frequent, and in general moſt troubleſome in the army, as are all venereal complaints; and alſo among the worſt cured, though almoſt every one pre-

* Vid. Brockleſby on Milit. Diſ.

tends to a knowledge of them. We alſo meet with Obſtipatio, Iſchuria, Herpes, Tinea. I place Bubo among the venereal complaints. Theſe are enumerated as the moſt frequent in the army; many are omitted which may occur occaſionally.

To ballance them, let us enquire what diſeaſes appear in regimental practice, more immediately requiring the Surgeon's aſſiſtance. With reſpect to the pure ſurgical caſes that occur in regimental practice, they are, for the moſt part, neither many, nor of a complicated or difficult nature. Now and then a phlegmon, ulcers, and ulcuſcula; by theſe I mean trifling ulcers, that require very little medical or ſurgical treatment. Small wounds; for it is ſeldom that large wounds occur; theſe may be ſlight cuts on the fingers, and contuſions on the head. Sprains of the ancles, wriſts, and ſhoulders; diſlocations; but theſe laſt are what, I believe, ſeldom happen; yet, ſince they may, we ſhall give them a place. Among the Ectopiæ, Hernia; this again, if it does occur, which I acknowledge to have ſometimes ſeen, is a complaint of ſuch a nature, that it totally diſables the man, ſo affected, from the ſervice. And hence ſuch

are

are always diſcharged, unleſs it happens to Taylors, when they are kept for the purpoſe only of working in the regimental ſhop. Sometimes, among the ſurgical complaints, we find Hydrocele, alſo Schirrus, particularly in the teſticles.

For the moſt part, neither wounds of the head are found ſo dangerous as to indicate the uſe of the trepan; nor do wounds of the extremities ſo large as to require amputation, ever occur; now and then a broken leg, from a fall, may happen. Large wounds happen often enough, we confeſs, after battles; but we have already mentioned how ſeldom battles on land are fought of any conſequence, or magnitude; I mean where much of this practice is neceſſary. A Bunker's Hill battle, a battle of Jemappe, or ſuch bloody conflicts as have been experienced in the campaign of 1794, it is hoped, and hoped too for the ſake of humanity and the happineſs of the world, will not take place every war; nay, nor every age, either among rude and ſavage, or poliſhed and civilized nations. In long continued ſieges they are to be found; yet the number of ſick, from the beginning of the ſiegeof Gibraltar, till its concluſion, have not

been many, when we conſider the number of regiments, and of Surgeons, that were ſtationed there. From this view, we may learn how much more neceſſary Phyſicians in regimental practice are, than Surgeons, ſtrictly ſo called.

In the war before our late unhappy and ill-judged conteſt with our American kindred, it appears from regiſters kept of the mortality produced by fevers of various kinds in military life, that eight times more men were loſt by theſe, than fell immediately by their wounds, or in battle. This is a farther proof how neceſſary Phyſicians are; yet medical ſcience continues to be much depreciated, and even thought unneceſſary; while the department has been conſtantly conſigned to the loweſt ſphere of the healing art *.

In the laſt ten or fifteen years, I admit, that young men begin their medical career with a better education than was uſual before this period; and many of them may even be ſtiled well prepared for *clinical practice*, and the duties they undertake; but ſtill the reſtrictions they lie under are too few, and open a wide door for *pretenders*. A young man

* Vid. Mil. Diſ. by Brockleſby.

may

may or may not be attentive to what is going forward in the *lecture*, or diſſecting room: he may attend the hoſpitals, or he may not, juſt as his inclination dictates; he pays the common admiſſion fees: at the end of the courſe he is not called on to give an account of his proficiency; he generally takes care, indeed, to call on the London teacher for a certificate; and I believe there is no inſtance in which this has been refuſed; no examination is required to obtain this; no further enquiry is made: he may deſerve it; he may not: they do not profeſs to examine. He returns to the country, and commences doctor in all its parts, apothecary, man midwife, ſurgeon, phyſician, all united: he was in London; he walked the hoſpitals, and has a certificate. This is enough.

Surgery and Phyſic are held diſtinct; this is univerſally granted by the diſtinct incorporated ſocieties into which the two branches are ſeparated; and what is of more importance, the education in many reſpects differs. The Surgeon generally contents himſelf with a much more circumſcribed plan.

I know a late writer has doubted the propriety of diſtinguiſhing them into two ſeparate

branches * ; but till he can change the mode of education ; till he can bring the Surgeon to ſpend the ſame length of time in ſtudy, that the Phyſician is obliged to ſpend in college before he be licenſed ; and till examinations be equally ſtrict, and on the ſame ſubjects, it will be in vain to conſider them as one and the ſame ; and to conclude that every man who can dreſs a ſimple wound, or make a few unguents, is equally capable of ſuperintending fevers and the other diſeaſes of the ſyſtem which we meet with in the army, would be as abſurd.

The generality of what are called Surgeons, *i. e.* who ſtile themſelves ſuch, are contented with ſerving an apprenticeſhip of a few years; then go to London or Edinburgh a few months, in winter, to walk the hoſpitals ; return home and ſet up for themſelves ; and this forms the whole of their medical education † ; the greater number never offering

* Kirkland.

† In Ireland it is even more imperfect. What is ſtiled a regular Surgeon in Dublin, where the beſt in the kingdom are ſuppoſed to reſide, only ſerve an apprenticeſhip to ſome Surgeon in the metropolis. Many, however, go now to Edinburgh from Ireland, to purſue their ſtudies.

themſelves

themſelves as candidates for a Diploma in the branch they profeſs, as will appear by the ſmall liſt of examined Surgeons publiſhed by authority from Surgeon's Hall.

Before I finiſh this head, I think it may not be out of place to mention the preliminary education of ſuch as intend to ſtudy ſurgery, which is required by one of our continental powers; and if it be contraſted with the little attention that is generally beſtowed on this part among us, I fear the compariſon will be conſiderably againſt Great Britain, notwithſtanding the fame ſhe has juſtly acquired for her medical erudition. I ſhall give the account as I find it.

"Madrid, May 4, 1787.—The King has approved of the eſtabliſhment of a College of Surgery, in this capital, under the name of St. Charles, and under the immediate protection of the Royal Council, ſimilar to thoſe of Cadiz and Barcelona. This college will be compoſed of a Preſident, eight Profeſſors, and a Diſſector of diſtinguiſhed merit, elected from the number of thoſe who travel at the Royal expence, for knowledge and improvement in the art of ſurgery. This ſchool will admit

admit *none* but thoſe who are furniſhed with certificates of their having ſtudied Humanity, Logic, Algebra, Geometry, and Experimental Philoſopy for a due time. Thoſe certificates, beſides warranting the life and manners of pupils, muſt contain the names of parents, place of birth, and be ſigned by Curates."

Here is an education becoming and proper; and a man ſtudying ſurgery on ſuch a foundation muſt practice with credit, provided he has been bleſſed with a due ſhare of genius to improve by his opportunities; for it is both theſe united, that forms the man of profeſſional ſkill. We ſo far agree, however, with the poet, that,

" Tho' nature weigh our talents, and diſpenſe,
" To every man his modicum of ſenſe,
" Yet much depends, as in the Tiller's toil,
" On culture, and the ſowing of the ſoil *."——

I know that the ſurgical department, when liberally ſtudied, is as complicated in ſome of its parts as the Phyſician's; and requires both genius, application, and much reading; but the numbers that ſtudy it in this extended ſenſe are few, when compared to the number of ſuch as we hinted at above. Suppoſe ſur-

* Cowper's Poems. Vol. I. p. 212.

gical

gical caſes to be far more frequent than we find them in regimental practice, they are ſtill few, and the treatment eaſy and ſimple, when compared to the diſeaſes that belong properly to the care of the Phyſician. Soldiers, whether in peace or war, are every day of their lives expoſed to the cauſes of the one; *i. e.* to what induce thoſe diſeaſes which we have ranked under the medical head; while on the other hand, they may not be expoſed once in a life-time to that of the other.

What has already been ſaid to prove that the practice requires more of the Phyſician's than the Surgeon's aid, we apprehend is ſufficient to convince our readers of its truth; but it will appear ſtill farther from the following fact, which, indeed, the public have been in poſſeſſion of theſe twenty years. I quote it from an author who wrote ſo long ago as 1764, and who likewiſe touched on the ſame ſubject, and hence I am happy to have his teſtimony to corroborate my own opinion, that the regimental practice belongs more to the Phyſician than the Surgeon, or to uſe his words, "more than mechanical dexterity in dreſſing a wound, or even of cutting

ting off of a limb."—"The fact," ſays he, "was well vouched to me by a very ingenious and worthy man, who was ſeven years Surgeon to a regiment in the late war," (i. e. in the war preceding our laſt) "during which, the corps had been two campaigns on very hard ſervice, and had alſo ſuſtained the ſevereſt ſhocks and loſſes which attended the tedious ſiege of the Havannah; yet the Surgeon declares, that in full ſeven years, he had not met with a hundred, properly, chirurgical caſes in the whole regiment, though, in the courſe of that time, near two thouſand men had gone through the regimental books, including 400 men draughted out of it into different corps."—"May we not then juſtly conclude," he goes on, "that in time of profound peace, the exigences of chirurgical dexterity compared to the objects of medical attention in any regiment, are at moſt one half leſs than they had been obſerved at two battles and a ſiege, beſides the reſt of the ſeven years; conſequently, that the medical ſcience requiſite for a regiment is at leaſt forty times more neceſſary to be in ſome meaſure practiſed, for once that any particular dexterity

terity in manual operation, or ſurgery is required*."

This granted then, which cannot be denied, is it not ſtrange, that the army ſhould be ſupplied with ſo few of the one profeſſion, though their aſſiſtance be ſo frequently wanted, and with ſo many of the other branch, though there be in general ſo little need for operations in military practice, or of their aſſiſtance in other diſeaſes, where it becomes their province to act?

However the preſent age may boaſt of literature and refinement; however, we may hold ourſelves in high eſtimation above the ancients, both in reſpect of knowledge in war and philoſophy, yet they ſeem to have taken a greater advantage of the ſcience they poſſeſſed, and no doubt, reaped, as the fruits thereof, a proportionable ſucceſs. Xenophon, in his hiſtory of Cyrus†, a general, who in the eſtimation of this hiſtorian, was the ableſt of all antiquity, mentions, among his other qualifications for a general, that previous to a war, he wiſely choſe able Phyſicians, for the management of the ſick, and diſmiſſed them afterwards with honours, as well as

* Vid. Mil. Diſ. by Brockleſby.

† Vid. Xenoph. de Inſt. Cyr. Hiſt. lib. 8. p. 167.

with the rewards earned by their ſervices. It were well, if Britain copied his example: but it is too notorious how little attention is paid to this ſubject; an over negligence both in choice, and in rewards, would ſeem a reproach on us. The ſmall, and inadequate pay, is a ſufficient proof of this; or, their diſmiſſion at the end of a war without any proviſion whatever. The naval medical gentlemen will join me in the obſervation, and corroborate the aſſertion; more than two thirds of whom are then turned a drift; the militia practitioners will confirm it likewiſe, who, though they have ſerved the whole duration of a war, be it ever ſo long, are ſimilarly treated, and unregardedly diſcarded; and the regimental Mates, in the regular ſervice, will alſo unite their teſtimony.

But to return; the few Phyſicians that are appointed to the ſervice, are ſeldom convenient to give their advice in medical caſes, except, immediately, in the places where they remain: Such as at ſieges *, and large en-

* Sieges are often very healthy. On the 24th of July, 1782, there were in Gibraltar 7234 privates; the number of ſick was only 265; and, ſome of theſe, we are told, appeared in the ranks occaſionally.

General Evening Poſt, Oct. 5, 1782.

campments,

campments, where a general hoſpital is formed, there we find a Phyſician. During a period, perhaps, of twelve or more years, an army Phyſician never ſees a regiment till it be brought to form part of an encampment. Does it ſtand in no need of a Phyſician all this time? Is his utility only to continue a few ſummer months, during an encampment, and ſolely in time of war! Strange ſuppoſition! This is placing great confidence in the abilities of regimental Surgeons. Surely we ſhould be apt to conclude that their capacities muſt be well known to Government, before ſuch important charges could for ſo long a time be committed entirely, and without controul, to their diſpoſal.

It will be ſaid, there is a Surgeon-general to inſpect the conduct of theſe gentlemen; but it is as ſeldom he viſits regiments; nor, indeed, would it be poſſible for him, ſcattered, as regiments muſt be, over ſo large an extent of country. In ſummer he pays a formal viſit to each encampment, and in each regimental hoſpital, if there be no general one, he ſtays a few minutes; but he is never ſeen more during the campaign. All this might be eaſily rectified, either by ſuch a method

method as we have already ventured to point out, or ſome other which the wiſdom of Government might deviſe.

It may be objected here to my recommendation of Phyſicians in place of Surgeons, for regimental practice; that I am contending more for a ſhadow than a ſubſtance; for a name than a reality. Far be this from me! It is the ſame thing, as to the effect, by what name they go; whether by that of Phyſician, or Surgeon, provided they be men of ſenſe, and knowledge in their profeſſion. Names can never change things; they can never change a Phyſician to a Quack; nor a ſkilful Surgeon to a Mechanic, though all the world in common converſation, ſhould denominate them ſo.

> "What is a name?" ſays the Poet,
> ——"That which we call a roſe, by any
> Other name wou'd ſmell as ſweet, ſo Romeo
> Wou'd, where he not Romeo call'd."

And ſo will a man of medical knowledge, be ſtill a man of medical knowledge, let him be called by what title the world pleaſes. But I do contend that he ſhould poſſeſs the education of a Phyſician; and of courſe, it were better if he had a Phyſician's diploma in preference

ference to a Surgeon's, ſince the examinations that obtain them are on different ſubjects, and require a different direction of ſtudies.

It is well known, that whoever ſtudies medicine, ſtudies at the ſame time the ſcientific parts of ſurgery, and is equally ſkilled in it with him who calls himſelf a Surgeon, except in handling the knife. With this it is not his province to interfere, as it would intrude too much on the profeſſion of his brother; but if engaged in regimental practice it may occaſionally be neceſſary that he ſhould practice operations. It is abſolutely incumbent on the Phyſician to acquire this knowledge in ſurgery, becauſe he is frequently called where a great part of the complaint is ſurgical, and has beſides, repeated opportunities of ſeeing operations.

In ſuch caſes, his opinion reſpecting the health of the ſyſtem is required, and according to it the Surgeon acts, whether it be to operate or not; but it is not equally neceſſary for the Surgeon to ſtudy the practice of medicine. With anatomy both ought to be well acquainted, but both not always with phyſiology, general pathology, and thoſe branches

mentioned above. Nor is it abſolutely requiſite for the Surgeon to ſtudy the Materia Medica, except ſo far as reſpects plaiſters, unguents, fomentations, and the like. While I ſay this, I do not mean that they are, in general, found unacquainted with other parts of it; I only contend, that it is not conſidered as requiſite for obtaining their ſurgical diploma.

Inſtances, it is ſaid, have occurred during the late war, where Surgeons were raiſed to the office of Phyſicians by the mere word of a Commander in Chief. We ſhall not ſay that the knowledge of ſuch were not ſufficient for the office to which they were elevated; but we may be allowed to remind even commanders, that it is an unwarrantable ſtep in them. It is an encroachment on the regular bred Phyſician, and on the prerogative of the Univerſity. It may likewiſe prove a diſcouragement from ſtudy, and examinations. As ſoon as ſuch proceedings get abroad, and when it is found, that the loweſt practitioners ſtand a chance to be advanced to the privileges of the Phyſician, and enjoy without ſtudy thoſe emoluments he ought to receive, candidates for the army will ſpare them-

themſelves the trouble of tedious preparations for examinations, as well as the expence of a Doctor's degree: they will remain contented with a Surgeon's diploma; perhaps even never apply for this.

Suppoſe Generals were never to make ſuch appointments without a recommendation, yet this is not enough; the perſon to be promoted ought to have the ſanction of an Univerſity, a lawfully inſtituted ſeminary of medical knowledge. A man may give univerſal ſatisfaction to officers by his manner of conducting himſelf; or he may ingratiate himſelf into the favour of thoſe that have power to ſerve him. If the promotion he obtains, be in his own line, it is well; but when thoſe bounds are broken down by an *ipſe dixit*, then it becomes a fault. A General has as much right to create a Biſhop, as he has to create a Phyſician, *i. e.* he can do neither; it is beyond his proper ſphere of action. It is juſt as abſurd as if the College of Phyſicians ſhould pretend to create a General, who never were bred to war, and poſſeſs neither practical knowledge in the art, nor lawful authority for ſuch proceeding.

Surely he would never be acknowledged among general officers as one, though the Univerſity ſhould meet and in the moſt ſolemn manner proclaim him ſuch. It is juſt the ſame with a General who dubs a man a Phyſician, if an Univerſity, who have properly the power of ſuch creation, never conferred on him this dignity; he may indeed give him the emolument, this he has in his power to do; but I will ſubmit it even to himſelf, if this be acting with propriety, and for the advantage of his Sovereign's ſervice. His Sovereign has delegated to him this power of commiſſioning medical people to relieve the complaints of the ſoldiery; not with the expectation that it is to be abuſed by the introduction of irregular perſons. Such a ſtation ought to be conſidered as the ſecond in military life. When things go on in this manner, it is no wonder if Generals find their armies compoſed of feeble and unhealthy ſoldiers; or to uſe the words of Milton, "If they ſee the ſoldiers ſhed away from about their officers as ſick feathers, though never ſo often ſupplied."

But to return; to recommend ſtudy, and to endeavour to point out the advantages of improving

improving the mind, to ſuch as have the practice of medicine in view, and more eſpecially, to regimental practitioners, who are chiefly the objects of theſe pages, cannot, I think, be cenſurable; and I hope my endeavours towards this end, however imperfect, ſhould they not deſerve applauſe, will, at leaſt, be allowed to paſs without the accuſation of preſumption, or the odium of arrogance, and ſelf-importance.

In diſcharging a truſt of ſuch magnitude, of ſuch conſequence to the public welfare, as the practice of medicine, it becomes a duty of the firſt order to prepare ourſelves with care and diligence, and to call to our aſſiſtance every aid we are able to procure. Nor, perhaps, is it beneath the wiſeſt, the moſt informed, and experienced of the profeſſion, to reflect, and that ſeriouſly, on the following ſentiment, viz. that,—" it is, often, not from any deficiency in the engine when we fail, but from an error in us who wield it;"—Or, in the words of Pope,—that,

———" if vain our toil,
The fault lies in the culture, not the ſoil."

Were we to conſider a knowledge of the ſciences only, in the light of making us more

happy, independent of their aſſiſting us in medical reſearches, this ought to be an inducement to cultivate them. For happineſs is what every one has in view, however different the ways may lead, through which it is ſought; and there is a pleaſure in purſuing ſcience, in ſearching for knowledge, not leſs to the mind engaged therein, though at firſt leſs apparent, than in the flowery and inviting paths of frivolous amuſement, and diſſipation; a pleaſure too, that affords ſatisfaction on reflection, when thoſe years are almoſt full, that require us "to be numbered with the dead." which the other cannot beſtow. Our various enjoyments through life are heightened by ſcience.—"Science renders life leſs animal, leſs confined to the duſt we tread on."—And ſo great is the ſatisfaction of acquiring knowledge, "that, (ſo we are told) Archimedes abſorbed by this pleaſure, did not even perceive the ſoldier who came to plunge into his breaſt, the ſword which ought to have protected him."

I ſhall conclude the foregoing remarks with the ſentiments of a diſtinguiſhed author *, on the ſuperiority of the perſon whoſe mind is

* Vid. Lounger, Vol. III. No. 100.

improved

improved and enlightened by literature, in what ſphere of life ſo ever he be, over him who remains in the darkneſs of ignorance. After telling us, that the waſte of time is a very calculable loſs, but that depravation of mind is a waſte of a much higher denomination, he goes on—" the votary of ſtudy, or the enthuſiaſt of fancy, *may* incur the firſt, but the latter will be ſuffered chiefly by him, whom ignorance, or want of imagination has left to the groſſneſs of mere ſenſual enjoyments. In this, as in other reſpects, the love of letters is friendly to ſober manners, and virtuous conduct, which in every profeſſion is the road to ſucceſs and to reſpect."

" To the improvement of our faculties, as well as our principles, the love of letters appears to be favourable.—They give room for the exerciſe of that diſcernment, that compariſon of objects, that diſtinction of cauſes, which is to exerciſe the ſkill of the Phyſician ; to guide the ſpeculations of the merchant ; and to prompt the arguments of the lawyer ; and though ſome profeſſions employ but very few faculties of the mind, yet there is ſcarce *any branch of buſineſs* in which a man who can think, will not excell him who can

only labour. We ſhall accordingly find, in many departments where learned information ſeemed of all qualities the leaſt neceſſary, that thoſe who poſſeſſed it in a degree above their fellows, have found from that very circumſtance, the road to eminence and to wealth."

"He who has mixed general knowledge with profeſſional ſkill, and literary amuſement with profeſſional labour will have ſome ſtock wherewith to ſupport him in idleneſs, ſome ſpring for the mind when unbent from buſineſs, ſome employment for thoſe hours which retirement or ſolitude has left vacant and unoccupied."

A SHORT

A

SHORT DESCRIPTION

OF THE

INFLUENZA,

WITH ITS DISTINCTION

AND

METHOD OF CURE.

PREFACE.

THE following ſhort Eſſay on the Influenza was written during the laſt epidemic attack of the diſeaſe, and publiſhed in June, 1782, before it had entirely diſappeared in the neighbourhood where the remarks were made. It is republiſhed here as connected in ſome meaſure with my obſervations on the medical practice of regiments.

A SHORT

A

SHORT DESCRIPTION, &c.

THE inclemency and backwardneſs of the ſeaſon * have been remarked by ſome of the oldeſt people living, to be the greateſt in their remembrance. The ſpring proved exceedingly cold, which checked vegetation; and in ſeveral parts of Scotland, numbers of cattle periſhed for want, as neither fodder nor graſs could be procured for money; many were killed for the ſame reaſon. Our accounts from Plymouth are nearly ſimilar.

A Gentleman, who took for ſeveral months paſt an exact account of the ſtate of the weather, aſſures us that he found the thermometer ſtand one degree lower on the 22d of May, than it did on the 22d of the preceding December; and that on Chriſtmas-day laſt, and Whit-

* Spring, 1782.

ſunday,

ſunday, it ſtood preciſely at the ſame height. For three months we have ſcarcely enjoyed a ſingle day, without more or leſs rain.

About three weeks ago there was a dreadful thunder ſtorm; the morning ſhone bright, and the day warm till about twelve, when it lowered on a ſudden. The lightning and thunder were remarkable, accompanied with a ſhower of large hail ſtones. I took up ſome as they fell, examined their ſize, and am perſuaded they would have meaſured upwards of half an inch round; the thunder laſted more than half an hour, and the hail continued to fall about a quarter of an hour or twenty minutes. It did not, however, ſpread to any great diſtance, for five miles from this no hail was perceived.

Since this it has thundered frequently, but the moſt remarkable was about the 24th of May. It began in the evening, a little before ſun-ſet, and continued at leaſt for two hours. The thunder at this place, however, was leſs remarkable than the lightning; I ſtood with a gentleman here to obſerve it nearly the whole time of its continuance. Preceding the thunder, it was a dead calm, and the day likewiſe

likewiſe by far the warmeſt we had experienced for a length of time before.

There was ſomething awfully beautiful in the lightning. It did not appear in flaſhes in general, but in large balls, one rolling after another over the heavens northward of us, and now and then daſhing one againſt another, driving off large ſparks, producing a great and ſudden glance, which enlightned the ſtreet of the village for an inſtant, as if the ſun had ſhone forth; yet the thunder was at a conſiderable diſtance, as we could eaſily aſcertain by the interval between the lightning and the peal. From this we concluded ourſelves in no danger, and ſtood with the leſs concern to view the uncommon appearance it produced.

We preſaged, that over the places where the fire balls paſt, there muſt be damage ſuſtained, and almoſt the next poſt confirmed our ſuſpicions; for not only houſes were burned, but ſeveral perſons loſt their lives, and many trees were ſhattered to pieces.

Nearly about the ſame time the Influenza made its appearance in London, and the country round. It ſpread in a few days with great rapidity, inſomuch, that a phyſician of extenſive

extenſive practice in the city, is ſaid to have viſited no leſs than one hundred and ſeven patients labouring under it in one day.

At St. Alban's it ſoon became prevalent; the ſoldiers that lay there ſeemed to be the firſt victims of its fury. Out of three companies quartered in that town, ſcarcely a ſingle man was fit to do duty—the officers ſuffered in like proportion; for one only eſcaped the complaint.

In the neighbouring towns it raged with no leſs ſeverity. I have ſeen ſeven in one family, nine in another, five in a third, and in a fourth, eleven ſeized with it. We had accounts, that in Sir Patrick Blake's family, fifteen laboured under it; and in the Duke of Marlborough's no fewer than twenty-ſeven.

This is allowed to be one of the wideſt ſpreading epidemics in the whole catalogue of diſeaſes. It is not confined to thoſe on land; at ſea it rages with equal fury. The accounts we have from the fleets, confirm this remark. It is ſaid, that 400 of one ſhip's company, and 300 of another, came lately on ſhore ill of it; nor does it ſeem to be confined to the human ſpecies; for it is ſaid horſes are in like

manner

manner ſufferers, as well as ſheep; but this I will not give for a fact.

In my journies to viſit patients, I have obſerved both horſes and ſheep cough frequently; I think others have obſerved the ſame in former ſimilar epidemics; how far this was connected with it, I dare not ſay.

The laſt time it made its appearance is yet freſh in the memory of every one; it was but a few years ago; at that time it ſpread in a ſhort period over all Europe; I am told it has at preſent reached the Continent; and there is ſome reaſon to believe, from the experience we have in the diſeaſe, it will viſit many parts before it ceaſes.*

SYMPTOMS.

The firſt ſymptoms are a great cough, with ſtraitneſs about the breaſt and conſiderable dyſpnoea. The patients generally complain, as if they had ſomething like a ball in their throat, about the head of the ſternum; to this they attribute the want of free reſpiration; a

* Since this was written, there are accounts of its having made its appearance at Stockholm and other parts of the Continent, where it rages with violence.

coryza,

coryza, or running at the noſe, always takes place, thin and acrid, excoriating the upper lip, and vellicating the membrana ſneideriana, rendering the inſide of the noſe extremely painful: this is always accompanied with a violent ſneezing, which adds very much to the pain of the head. In general, among my patients, I found a ſoreneſs over the eyes, chiefly about the brows, which they ſaid was ſeated in the bone, and rendered them ſtiff and painful to be opened, nor when open could they bear a ſtrong light. A rheum alſo diſtilled from them, not unlike what we obſerve take place in the meaſles.

The head is alſo in this complaint much affected, eſpecially the fore part, in the courſe of the frontal ſinuſes. This pain is much aggravated by coughing; at the ſame time are felt univerſal pains over the whole body, ſuch as we often meet with in continued fevers; there is generally a febricula, which is known by the alternate heat and cold the patients feel; and in ſome caſes the pulſe is evidently accelerated, the fever running very high; but in the greater number of thoſe that came under my care, this did not happen.

In

In many I could diſtinguiſh very little fever, by what remarks I was able to make on the pulſe: in others, nevertheleſs, it was ſufficiently evident, and many were weak thereby and faint. There is always ſome thirſt accompanying it. In my own caſe, and in all thoſe I viſited, the pain on attempting to cough was felt about the head of the ſternum, reaching as far down as its middle, but not ſpreading far on either ſide. I found very few who pointed at the ſeat of the pain as placed near the cartilago enſiformis. From this it appears to be entirely confined to the trachea, and its firſt ramifications; neither the pleura covering the lungs, nor their proper coat having much part in the affection.

In ſome who were valetudinarians, whoſe lungs were previouſly in an unſound ſtate; or where there was an hereditary taint, laying an eaſy foundation for an affection, the caſe was otherwiſe. Theſe were ſeized in a more violent manner, and the complaint here put on a more dangerous appearance.

The pain in the breaſt is ſeldom felt but on attempting to cough. Then it reſembles the pricking of a thouſand pins, almoſt totally checking the effort.

The throat and mouth burns with heat, with an uncommon ſmarting pain all over the fauces, and behind the velum pendulum palati. The tongue and fauces become dry, and conſiderably parched. In two patients this was remarkably the caſe. Some bled at the noſe; and one patient had abſceſſes formed in both ears, which burſt and have continued diſcharging for ſome time paſt.

As the complaint abates, the pain in the breaſt ceaſes; firſt gradually leaving the ſternum and neighbouring parts, but continues fixed ſome time longer about its head, with a duller and leſs acute ſenſation on coughing, which very little now, if at all, impedes that effort of nature to free herſelf from ſomething irritating.

In this ſtage, expectoration becomes more eaſy, the cough leſs ſevere, *i. e.* leſs painful, as was already mentioned, but not leſs frequent; the fit not ceaſing till a quantity of mucus be pumped up. Though a diarrhæa be not a characteriſtic ſymptom, nor frequently met with, yet I have ſeen ſome few caſes where it was conjoined. In ſome of theſe, however, it exiſted before the Influenza made its appearance.

The

The duration of this diſeaſe, in general, is not long. I have ſeen none very ill above a week: many not more than three or four days. Others, however, have been leſs mildly dealt with, and have laboured under it for upwards of fourteen. It generally leaves the body weak and debile, and for a conſiderable time unfit for much exerciſe.

A gentleman who left London a few days ago, told me, as he paſſed through the ſtreets pretty early in the morning, that he obſerved many of thoſe who cry things for ſale, leaning their heads againſt the walls of the houſes, and in this ſituation crying their goods; not being able to ſupport themſelves upright.

The ſeat of the complaint ſeems, from the hiſtory we have given of its ſymptoms, to be entirely placed in the mucous membrane of the trachea, ſneiderian membrane, and that lining the frontal ſinuſes. That there is an inflammation induced in thoſe, muſt alſo be obvious, and this greater or leſs, according to the violence of the diſeaſe, and the habit of the patient.

DIAGNOSTIC.

It is no difficult taſk to diſtinguiſh it from an inflammation of the lungs, and pleura. The ſtate of the pulſe, which in this complaint is for the the moſt part ſoft and feeble, in the pleura generally full and hard, would of itſelf ſuffice for this purpoſe; but the coryza, which never takes place in the pleuriſy, will be ſtill a farther mark: nor are there found in pleuriſy thoſe wandering pains over the body, ſo univerſal in this diſeaſe. It has, indeed, a nearer reſemblance and connection with the catarrh. In both we often meet with coryza, pains in the head, and over the body; but the ſporadic nature of the one, appearing only in thoſe perſons who have been expoſed in a particular manner to cold, and the epidemic nature of the other, attacking almoſt every one indiſcriminately, without diſtinction of ſex, age, or ſituation, will direct us in our diagnoſtic. Perhaps, we might add a previous conſtitution of the air, and ſtate of the weather, at leaſt, in giving a prediſpoſition to it. A man who had a compound fracture of the thigh, and had been confined to bed by it for upwards

upwards of four weeks before the diſeaſe made its appearance, was ſeized with it, and ſuffered equally with the reſt of the family. This is a ſtrong proof of its epidemic and contagious nature. But the chief diagnoſtic mark is its ariſing from a ſpecific contagion inducing a great degree of debility.

It has been ſuppoſed by ſome that pneumonic inflammation has been contagious from its appearing as an epidemic; but I am of opinion, we may, without great difficulty, diſtinguiſh between ſuch an epidemic, if it ever does become ſo general as to put on the appearance of one, and the Influenza, from the difference both in the extent and rapidity of the ſpreading of this beyond the other, not to mention ſeveral other obvious diſtinctions to diſcriminate them.

CURE.

When the Influenza is ſkilfully treated, it ſeldom proves fatal;* on the other hand, if

* I have heard only of one perſon who died of it, ſince its preſent commencement: he was previouſly in a bad ſtate of health.

unſkilfully handled or entirely neglected, it may lay the foundation for conſumptions. The inflammation may ſpread, may penetrate into the ſubſtance of the lungs; abſceſſes may be formed; the conſequence of which muſt be abſorption: the maſs of fluids in this manner will be contaminated, and the patient at length ſink under a confirmed hectic.

With reſpect to the method to be purſued; in this part of the country veneſection is unſafe, unleſs in plethoric and robuſt habits. It yields in moſt caſes to the other modes of removing inflammation. We are to adminiſter plenty of thin, diluting liquors, ſuch as barley-water with a little nitre, or acidulated with orange or lemon juice: ſage tea, ground-ivy tea, balm tea, orange whey, weak negus made with oranges or tamarinds, lemonade ſweetened with honey. Which ever of theſe we chuſe to drink, it ſhould be uſed ſomewhat warm. The relaxing powers of ſuch liquids are greater when ſubtepid than either altogether cold or when made pretty hot. It ſhould be a conſtant rule to ſip of theſe drinks every now and then, whether thirſt requires it or not. Our drinks may be ſweet-

ened to our taſte with honey, ſucc. glyrcerrh. or liquorice-root, boiled in it.

Gentle diaphoretics ought not to be omitted to promote a free perſpiration, on which a great part of the cure will depend. For this purpoſe ſp. minderer. with a few drops of vin. antim. and a few of L. Laud. will anſwer. If our patients are not ſo bad as to be confined to bed, we ſhould at leaſt caution them to ſtay within doors; but it would be better ſtill to adviſe them to keep in bed to encourage perſpiration. The feet ſhould be every night bathed in warm water. This will not only bring the determination of the blood from the bronchiæ, and of courſe relieve them, but a conſiderable abſorption of the water will be made, and the blood even in this manner, if there be any degree of ſizineſs exiſting in it, diluted, and the coheſion of its gluten looſened. When the cough is diſtreſſing and keeps the patient from reſt, an opiate muſt be adminiſtered. I give them with great ſucceſs: for admit there be preſent a conſiderable ſhare of inflammation, yet the irritation occaſioned by the cough more than over-ballances the heating qualities of the opiate; nay, a night's reſt from coughing, wonderfully promotes ex-

pectoration. It is needleſs to mention mucilages, after what was ſaid above on drinks. Solutions of gum arabic will prove here very ſerviceable. Coſtiveneſs is to be obviated by ſome of the milder laxatives; perhaps cream of tartar made into an electuary with honey may ſuperſede all others; for the ſimpler our preſcriptions are, ſo much the better. A multiplicity of medicines only breeds commotion and interrupts the action of one another. We may relieve the pain of the throat, by ordering the ſteams of warm water to be inhaled. This may be medicated with herbs as we may judge proper, though the warm water alone will anſwer nearly as well. If proper inhalers, ſuch as deſcribed by Mr. Mudge, be not convenient, a tea-pot, wrapping the pipe round with a handkerchief or towel, forming a ſort of tube, may anſwer as a ſubſtitute.

The food ſhould be light; rice or bread pudding; thin broths; ſago; to a pint of which, a glaſs of white wine may be added. Panado, to which likewiſe, if our patient be not very feveriſh, we may add a little wine.

If the appetite be not much impaired, which I have ſometimes found to be the caſe, and the patient ardently wiſhes to indulge in ſome freſh meat, it ſhould be boiled. Roaſt meat heats too much, as having its fat or gravy, in a great meaſure, retained in it by the conſtant rotation it undergoes in dreſſing.

As vegetables are laxative, and do not produce ſo much chyle as fleſh meat to diſturb the animal œconomy, we may allow our patients ſuch of the olera as they chuſe.

I ſeldom find it neceſſary either to bleed or bliſter *; nor have I heard of any caſes ſo treated in a circuit of between twenty and thirty miles round this place, ſave one Lady at St. Alban's, where the Surgeon thought it neceſſary, and whoſe blood indeed was conſiderably inflamed, as appeared by the coagulable lymph ſeparated on its ſurface. I have been informed, however, that in London they both bleed and bliſter with advantage. In ſome parts of the city, however, I am authorized to ſay, bleeding did not anſwer. Dr. Rogers, Phyſician to the Finſbury Diſ-

* One Surgeon in this town tells me, he has applied bliſters in a few caſes where the difficulty of breathing was great, bending the body forward, and threatning (he ſaid) ſuffocation.

penſary,

penſary, Clerkenwell, whoſe opportunity of ſeeing the diſeaſe has been extenſive both in his public diſpenſary and private practice, informs me, that in place of finding it accompanied in general with much inflammation, it rather verges towards the typhus type. In one caſe this was remarkable; ſo that he was obliged to adminiſter the bark in various forms. This patient was a Lady, and of a delicate habit.

My friend Dr. Willan likewiſe, Phyſician to another Diſpenſary in the city, ſaw a caſe where a few ounces only of blood were taken away; the conſequence of which was a depreſſion of ſpirits and lowneſs of pulſe, where the beats could with difficulty be diſtinguiſhed for three days after, notwithſtanding endeavours to raiſe it.

Vomits too, in the beginning, have been ſaid to have very good effects; but in this country I have not ſeen a ſingle emetic ventured on; and have heard only of two or three inſtances of it. They create great irritability; for this reaſon I ſhould be afraid to venture on them. It is true, they open the pores of the ſurface, and relieve obſtructed perſpi-

perſpiration ; but this may be done with more ſafety without them.

With reſpect to bleeding ; the nature of this place and ſeaſon, ſufficiently caution againſt it. The country is woody ; the leaves of the trees now pretty fully opened ; hence they retain a greater quantity of moiſture, and from their ſhade impede the free circulation of the air ; the rains for months paſt almoſt continual, and of courſe much ſtagnating water on the ground. A conſtant exhalation of vapour is daily more or leſs taking place ; by this means the atmoſphere is loaded with moiſture : and as the ſummer is now advancing, when the ſun ſhines forth, it is with vigour, which raiſes the moiſture ſtill more. This variableneſs of weather, often in the ſame day, is ſufficient to relax the moſt robuſt fibre, and induce debility in the ſtrongeſt habits.

That this is the caſe is evident, from the number of intermittent fevers round this neighbourhood. Of numbers that dwell along the banks of a ſmall rivulet that waters this, and ſeveral other villages in the courſe of twelve or fourteen miles, fevers of this type are to be found at preſent almoſt in every

family,

family. I have ſeen children under them of ſix years of age, and one ſo young as two; nor is this, as I am informed, a rare occurrence. The typhus has likewiſe ſhown itſelf in ſeveral inſtances of late in this place; all theſe plainly point at debility; for theſe reaſons, I have not bled in a ſingle caſe, excepting in one, of the many I have ſeen under the preſent epidemic; nor indeed does the ſtate of the inflammation in the leaſt warrant its propriety *.

In our practice among the poor, who are deprived of thoſe conveniences to be met with in genteeler life, we may fully anſwer our purpoſes by the Sp. Minder. & Vin. Antim. as mentioned already, giving plenty of milk poſſet, made either with butter-milk, or in its ſtead good vinegar.

Mucilaginous drinks may be made cheap, and good enough with Rad. Glycerrh. Spaniſh juice, decoctions of common mallows, lint-ſeed tea, decoction of bran, made palatable with honey, or ſuch like, the expence of

* Since this was written, a gentleman of this place tells me, he has bled in ſome few caſes with advantage; yet I examined the blood of one of his patients, and it confirmed what I advanced. The patient had inſiſted, however, on being bled.

which

which they may eaſily bear. Fifteen grains of nitre may be added to any of theſe, three times a day.

Whether we practice among the poor or otherwiſe, ſtrong ſudorifics ſhould be avoided. —Hence Pulv. Dover. Camphor, and ſuch like, are improper; theſe both heat and irritate too much. For the ſame reaſon we ſhould avoid all the warm Alexipharmics. Some order to the poor, treacle poſſet, made with treacle and ale, and oftentimes adding butter. This ſurely is an unwarrantable practice; it muſt throw the patient into a copious ſweat, and from ſuch relaxation of the perſpirable pores, he is in ten times the greater danger of catching a freſh cold. Lubricating and ſoftening linctuſes, will avail much in taking off the tickling cough, and allowing the mucus to thicken, theſe may be compoſed of Conſerv. Cynoſbat. ol. Amygdolar. Mucilage of Gum Arabic, and Paregoric Elixir, or Syr. Papaveris. Some add to this a few drops of Elix. Vitrioli: but I would object to this, as tending, perhaps, to check perſpiration.

A very uſeful and cheap Linctus may be compoſed of Mucilag. Sem. Lin. Syr. Moror. and a few drops of Sp. Nitr. Dulc.

Spermaceti

Spermaceti mixtures likewiſe, if it is judged neceſſary, may be given; but the Linctus ſeems to anſwer better.

By ſuch means as theſe we may reaſonably hope to obviate all the bad effects of the influenza, without the loſs of blood in moſt inſtances, and reſtore our patients to their former health and vigour. Let us remember the proverb, *ne ſanguinis humani prodigus*, at leaſt before we uſe the lancet, let us weigh well the ſymptom that ſeems to indicate it.

As the Author's intention in this little tract is rather to appear uſeful than elegant; he has therefore been at little pains with regard to diction, or ornament. To write plain, ſo as to be rightly underſtood, is all he aims at. The candid reader will, he is perſuaded, eaſily forgive errors of that nature, in a ſketch written in haſte, and intended for immediate uſe; and as he has conſulted no author in drawing it up, nor opened a ſingle book on the ſubject, his deſcription is to be conſidered as ſolely made from his own obſervations, ſince the preſent commencement of the diſeaſe: for this reaſon he hopes he is not cenſurable, if all its variety of ſymptoms be not enumerated.

The

The young practitioner, who has not had an opportunity of seeing the disease before, as well as the patient, may perhaps reap some advantage from the short and imperfect account given of it here. And if this end be obtained, he shall be the less anxious, on the present occasion, respecting literary reputation.

Luton, Bedfordshire, May 28, 1782.

FARTHER

FARTHER REMARKS

ON THE

INFLUENZA.

IN addition to the foregoing obſervations, I ſhall add the following, as being connected with the ſame ſubject. They appeared in the Memoirs of the London Medical Society, but as that Publication may not be in the hands of the Readers of this Work, I thought it expedient, from their connection with this ſubject, to reprint them here.

From the firſt of January this year, 1782, till about the end of May, throughout moſt places in the kingdom, the weather was commonly unfavourable. Snow, froſt, rain, wind, lightning, and thunder, in a great degree, by turns conſtituted the weather in the neighbourhood where I remained.

The ſpring was conſequently cold, and the tillage of the land was retarded by the almoſt conſtant rains which about this time marked the ſeaſon.

With regard to the time of its firſt appearance in the places where I then practiſed, as far as I could learn, it was in the firſt week of May. Doctor Grant dates its commencement in the ſuburbs of London, ſo early as March. For ſome time at leaſt before it appeared at St. Albans, which is only 21 miles from London, our accounts from the capital told us of its commencement there. By the middle of April the Doctor ſays, it had ſpread itſelf all over London*. Others however deny it to have been in London till May, and ſay that it raged moſt about the 20th of this month.

St. Albans and Luton are only 10 miles diſtant. It appeared ſeveral days ſooner in the former than in the latter place. Luton does not lie on the great road from London, therefore the communication with it is leſs.

My practice took in the compaſs of ſeveral villages, viz. Colney, St. Albans, Redburn, Market-Street, Harpenden, Dunſtable, Sundridge, Wheathamſtead, Hatfield, and Bell-Barr. By this Means it lay in a large ſcope of country, many miles in circumference. This afforded me ſome opportunities of remarking the progreſs of the diſeaſe, and the ſymptoms with which it was attended.

* Vide Grant on Influenza.

Between

Between St. Albans and Redburn the diſtance is only four miles and a half; yet it appeared later by ſome days in the laſt, than in the firſt-mentioned place, as far as I was able to learn.

Market-Street is about four miles from Redburn. Here likewiſe is was later in appearing than at the other.

Dunſtable is between ſeven and eight miles northward on the ſame road; and Luton five miles from it ſouthward. At theſe two places it ſhewed itſelf much about the ſame time.

Harpenden ſtands halfway between Luton and St. Albans. This was not only the lateſt place where it appeared, but there were fewer ill here, comparatively, both of the inhabitants and the ſoldiers quartered in it, and under my care. Perhaps this may be, in ſome meaſure, owing to its ſituation favouring leſs its exciting and prediſpoſing cauſe.

The houſes in this village are ſcattered irregularly over a conſiderable piece of ground; moſt of them not only ſtand ſeparately, but at ſome diſtance from each other; the ſtreet, if it may be called ſo, except in the north-end of the town, is in breadth nearly a muſket ſhot; a pretty wide common extending down it. In this common (or ſtreet) ſtand many trees, but not ſo cloſe as in any degree

to prevent free perflation. At the ſouth end of the town is a ſpacious common, covered here and there with heath. The town ſtands on an eminence, and the ſoil of a light dry nature, when compared to Luton, Redburn, and Dunſtable.

Sundridge lies about two miles and an half to the ſouth-eaſt, and is more encompaſſed with wood. About the ſame diſtance, likewiſe, but in a more northerly direction, lies Wheathampſtead. Fewer were ill in Sundridge, than Wheathampſtead, according to the ſize of the town.

Both Luton and Wheathampſtead lie very low; but chiefly Luton, which is buried in a ſort of dell, formed by hills near it on the ſouth-weſt and north-eaſt. Through both runs a rivulet, the banks of which in many places are flat, ſuffering its waters eaſily to overflow. This always happens when rains fall more than ordinary, whereby marſhes are formed along them, which ſometimes the heat of a dry warm ſummer is not ſufficient completely to exhale. In this part of the country there is alſo much wood.

North-weſt of Luton, on the road to Dunſtable, it is flat. A large ridge of hills runs

from Dunſtable to Luton, facing the eaſt, and of ſo chalky a nature, that in many places no ſward grows to cover it. For a conſiderable way eaſt of this ridge the country is flat, the river aforeſaid winding down it. This and the wood always keep a greater quantity of moiſture in theſe places; hence the air is colder from the exhalation; and the ground, if the weather be at all moiſt, is wet and dirty under foot. I would aſſign this as the reaſon for the greater frequency of intermittents along the banks of this ſtream, than in any other part of the country, ſpace for ſpace.

Dunſtable is ſituated more on a flat than the two laſt-mentioned towns; it may be ſaid to lie in a large vale, formed by ſome hills at ſeveral miles diſtance. A large pond of water ſtands in the midſt of the ſtreet, where horſes are watered and carriages waſhed. In St. Albans we find a ſimilar one. Theſe may be conſidered as of no benefit to the health of the inhabitants, eſpecially of thoſe living near them, and more immediately in the way of their effluvia.

The water in the pond at Dunſtable, as the weather grew warm, became very corrupt, which was denoted not only by its ſmell, but

by its green colour. I have likewiſe ſeen dead dogs lying in it; and indeed it is a receptacle for much filth toſſed into it by the careleſſneſs and inadvertency of the inhabitants.

Colney is on the great road, three miles nearer London than St. Albans. The diſeaſe appeared about the ſame time here as at St. Albans. The town is ſmall, and like Harpenden, ſcattered. It is waſhed alſo by a river, and the ſoil around appears to me rather of a lighter nature than ſeveral of the places mentioned.

Hatfield is diſtant only five miles from St. Albans, and in a more northerly direction. It is ſituated on the great north-eaſt road from London; ſtands partly on a hill, and partly on a ſteep declivity. Bell Barr is only two miles from it. The country all around is alſo thickly covered with wood. Though Hatfield is only 18 miles diſtant from London, yet the diſeaſe was later in commencing there than in the capital, notwithſtanding the conſtant paſſing of ſo many ſtrangers to and from London by the ſtage coaches, waggons, and other conveyances. The inhabitants and ſoldiers here ſuffered conſiderably. Each of theſe towns contain ſeveral hundred inhabi-

tants,

tants. In ſeveral of them weekly markets are held. Saundrige, Bell-Barr, and Colney, are ſmaller than the others.

The diſeaſe did not appear in Yarmouth till the firſt week in June. This town is diſtant from London 122 miles to the north. Ipſwich in Suffolk, is diſtant from the metropolis 70 miles on the north-eaſt, or rather eaſt road; it was alſo the firſt week in June when it appeared here; nor then, till it was brought thither from London. A ſurgeon at Ipſwich happened to be in London at the time it raged there; he left it on the laſt day of May, and arrived at his houſe about eleven next morning. "I left town," ſays he, "the laſt day of May at night, and was then ill of it. I had none under my care then in it: a few days after I had ſeveral, but none ſo much debilitated as myſelf" From him it ſpread through all the town.

At Stamfordham, in Northumberland, it alſo appeared about the firſt week in June*; according to my correſpondent it ſhewed itſelf about the ſame time at Newcaſtle upon

* My correſpondent's letter is dated July 8th, 1782, and ſays, "The Influenza now rages among us."

Tyne. It diſappeared about Stamfordham in the third week of Auguſt.

In the places already deſcribed, where my practice chiefly lay, it may be ſaid entirely to have ceaſed about the middle of June. But juſt at this time, a few dry, windy, and colder days than what had preceded, ſucceeded our moiſt weather. This produced ſeveral peripneumonic complaints. Some not ſufficiently aware of the diſtinction, and having their minds prepoſſeſſed with the prevalence of the late diſeaſe, miſtook, or rather confounded, this intercurrent complaint with the other; though, as it ſeemed to me, the diſtinction might have been eaſily made.

In ſuch as I viſited under it, there were neither coryza, cough, ſneezing, nor pains in the forehead, back, or loins; nor did that degree of debility, ſo characteriſtic of the influenza, attend it. Inſtead thereof, I found a ſtrong full pulſe, and ſhort reſpiration, or a catching in taking breath, with fixed pains in the breaſt and ſides.

The miſtake was not however attended with miſchief, for they bled their patients; found the blood ſizy, and in ſome caſes repeated it, they affirmed, with advantage.

The

The diſeaſe was ſtill termed the influenza, and they now contended that V. S. in it was altogether neceſſary ; thus making the ſizineſs of the blood a pretext for V. S. and the criterion whereby they were to be guided.

But did we think it proper to enter on the ſubject here, we might with propriety contend, that it is not always to be held as the mark of the phlogiſtic diatheſis prevailing in the habit.

SYMPTOMS.

As to the ſymptoms with which the influenza was attended, they were various in various perſons, according to the ſtate of the habit at the time of the attack. The firſt victims of its fury were the ſoldiers : And the firſt ſymptoms were, a great cough, ſtraitneſs about the breaſt, with conſiderable diſpnæa. The patients generally complained of a ſtoppage in the trachea, giving them the ſenſation of a ball lodged there. A coryza, or running of a thin acrid mucus from the noſe always took place, ſo as to excoriate the upper lip and vellicate the ſchneiderian membrane. A violent ſneezing ; a pain of the head,

head, much encreaſed by this laſt ſymptom, and moſt ſevere in the courſe of the frontal ſinuſes; a ſoreneſs over the eyes, chiefly about the eye-brows, which they ſaid was ſeated in the bone, was preſent. This rendered the eyes ſtiff, and painful to be opened; nor could they bear a ſtrong light; a rheum alſo diſtilled from them, not unlike what we have ſeen in the meaſles. Univerſal pains over the body; but in moſt only a ſlight fever; in others it ran very high, with a conſiderable acceleration of the pulſe. Faintneſs; ſome, though no great degree, of thirſt; the pain of the breaſt ſeldom felt but on attempting to cough. Then it reſembles the pricking of pins; but it was ſeldom or never felt ſo low as the cartilago enſiformis. The throat and mouth burns with heat, with an uncommon ſmarting over the fauces. Theſe and the tongue dry, and ſomewhat parched. In two patients, I remember, a parched tongue was preſent to a great degree. Here the thirſt was greater; ſome bled at the noſe; and one of my patients had abſceſſes formed in both his ears, which burſt, and continued to diſcharge for ſome weeks after. A diarrhœa was not a common ſymptom, yet I found it

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in ſeveral. Appetite was impaired in many; a nauſea alſo in ſeveral caſes took place. Little ſleep, and this little, for the moſt part, broken and diſturbed, with incoherent dreams. Pulſe by no means hard. In ſome, hoarſeneſs and frequent hawkings up of mucus; in others, little or none.

The heat that ſucceeded the cold, which more or leſs marks every febrile paroxyſm, ſometimes went ſo far as to be followed by perſpiration. In many of my patients this did not happen. The ſkin remained dry. I ſeldom found the belly coſtive; the face ſometimes ſwelled, and the eyes appeared ſunk in their ſockets, as we often obſerve in the eryſipelas. Weakneſs of the joints of the knees on motion, and a great proſtration of ſtrength, often happened.

In the neighbourhood of Stamfordham, and about the neighbourhood of Newcaſtle upon Tyne, my correſpondent ſays, it was accompanied with cholic pains, and cramps in the abdomen and ſtomach. And ſome there alſo had a purging, ſome had ulcers in the throat and fauces; but ſuch as I had occaſion to obſerve were very ſlight, and this was rather a rare occurrence. Many had a

ſlight

ſlight vertigo, but few of my patients had delirium, though I have heard of its being found frequently in the practice of others. Though a great faintneſs and debility commonly took place, yet fainting fits, as mentioned by ſome, except in one patient, and that after V. S. ſeldom or never happened among my patients.

Fits, reſembling an ague, have been mentioned as a concomitant of the diſeaſe, and in the more marſhy parts of the iſland, I doubt not of their exiſtence; and that the influenza was frequently accompanied with a remittent fever; while in the more dry and open ſituations, it would partake more of peripneumony. Huxham found this to be the caſe. "I well remember," ſays he, "that the catarrhal fever, which ſpread through all Europe, under the name of influenza, in the ſpring 1743, frequently became *pleuritic*, and *peripneumonic*; and as frequently after, two or three days, ran into a quotidian or tertian, the difference of the conſtitutions of the patients thus altering the nature and form of the diſeaſe *"

In the villages where my practice lay, I do not remember to have met with any efflo-

* Vide Huxham on Fevers, Art. Intermitt.

reſcencies

reſcencies on the ſkin. I find this was a ſymptom obſerved during the epidemic at Bath, as well as a redneſs and ſoreneſs of the throat; from which Dr. Faulconer imagines, that there is a ſimilarity between it and the ſcarlet fever, as deſcribed by Dr. Withering of Birmingham *. A Surgeon in Beccles informed me, that ſome of his patients had not only a foul tongue, but ulcers on the tonſils. He mentioned none that had red ſpots on the ſkin.

AGE AND CONSTITUTION MOST LIABLE TO THE INFLUENZA.

With regard to the age moſt liable to the diſeaſe among my patients, I think the middle age felt it moſt, ceteris paribus. I mean from 16 to 45, or ſo; but few of any age, ſex, or temperament, eſcaped it. When I ſpeak thus, I am to be underſtood of thoſe in good health before its attack; for with regard to people in general, the infirm, the valetudinarian ſuffered moſt, and if old, ſo much the more in proportion.

* Vide account of an influenza at Bath, by Dr. Faulconer.

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I had many opportunities of obſerving the influence of the weather in rendering it more violent. In a houſe where the huſband, wife, and three daughters were ill at once; the wife was by much the moſt ſeverely handled; and next to her the huſband. They kept a public houſe, and had a brewery, to the latter of which they gave more attention than the daughters, whoſe employment conſiſted in waiting on their cuſtomers within doors.

A boy, of about twelve years of age, of a very active diſpoſition, ſuffered ſeverely, yet eſcaped the diſeaſe, though the reſt of the family had been ill ſome time; till, after bathing with other boys in the river, and remaining there longer than prudent, when he was ſeized with the influenza. We may add to this, that he was a valetudinarian for a long time before, but had lately overcome all his complaints.

To corroborate the remark, that the weather, &c. had great influence in modifying it, not only at St. Alban's, but at other villages, the ſoldiers were firſt ſeized with it, and were more violently handled than moſt others. Soldiers are not only lighter clothed,

but worſe fed, worſe lodged, and more expoſed to the viciſſitudes of the weather, than moſt other deſcriptions of men.

An account from Aberdeen ſays, "The diſeaſe rages here, and it is rather ſingular that the ſoldiers are firſt attacked by it, and more ill of this deſcription of men than any other. If we allow the ſame influence to the weather for which I contend, there will appear nothing ſingular in the caſe. In a word, the fact is now well eſtabliſhed. The ſame remark was made at Dublin, for we find 700 ſoldiers there labouring under it at once, unable to do their duty at the barracks.

An account from Utrecht informs us of their having no leſs than 3000 ill of it.

With regard to the fleet, where the influence of the weather likewiſe prevails, as the crews are expoſed to the open air, both our own, and that of other powers, were great ſufferers by it.

Among others of our own veſſels, the Stag and Stout privateers ſuffered greatly; for in coming into Dublin harbour, moſt of their crews were ill of it. From one of our ſhips, it ſeems, that no fewer than 300 were put on ſhore under it; and out of another 400.

In

In the Nemeſis frigate, 70 were ill at once. This I had from an officer belonging to her, who was himſelf ſo ill, that he had not, at the time I ſaw him, recovered from its effects, though this was at the diſtance of four months from the attack.

Another inſtance that the weather had much influence in modifying it, is as follows:

A young gentleman at Luton, about 23 years of age, of a volatile turn, and lately a valetudinarian, but who, for eight or ten weeks, had ſo far recovered as to follow his amuſements; and who, for this purpoſe, generally walked or rode, whether the weather was favourable or not, ſeveral hours a day; often, at the ſame time, indulging himſelf freely in the glaſs, was at laſt ſeized with the epidemic, and ſuffered ſeverely. We may place this gentleman, in many reſpects, in the ſituation of a ſoldier, with regard to the irregularity of his life, and expoſure to the viciſſitudes of the weather.

The delicate alſo, and the valetudinarian, in all my obſervations, were great ſufferers, and ſtill greater in proportion as they were expoſed to the viciſſitudes of the weather.

Others

Others in different parts of England have alſo made the ſame obſervation. A Surgeon at Newbury, in Berks, writing to me on the ſubject, has theſe words, "A few infirm and bad habits ſunk," as hardly any valetudinarian eſcaped it: and as in theſe it generally appeared with the greateſt ſeverity, ſo, for the moſt part, it was attended with dangerous ſymptoms only in patients of this claſs. One woman at Luton fell into a phthiſis pulmonalis after it.

Both the ſtates of old age and infancy were more exempt from it than any other. I mean ſuch as were in good health. At four years of age, or ſo, many ſuffered. A Surgeon at Beccles, in a letter to a friend, affirmed, that a child of his, only 18 months old, took the diſeaſe. This, however, is the only inſtance of the kind that came to my knowledge, though I have converſed with many, and made much enquiry on the ſubject, in many parts of England. I had an evident example afforded me to prove how far the depreſſing paſſions prediſpoſed the body to be more ſeverely affected by it; theſe always debilitate the habit by the conſtant uneaſineſs the mind undergoes.

A ſoldier in the Light Infantry was for ſome time violently in love with one of the cyprian nymphs that follow the drum. She was young and handſome, and had ſo far engaged his affections, that he offered to marry her, though well acquainted with her way of life. She preferred her liberty, and refuſed him. This had ſuch an effect on his ſpirits, that from a ſtout well-looking young fellow, with all the health of a farmer's ſervant (for he was lately a recruit from the country) in a ſhort time he became thin and wan; he took the diſeaſe, not however when the others had it, but in the beginning of June, when the regiment marched from the villages aforeſaid to Royſton, on their way to camp. A day or two before this he parted with his goddeſs at Luton. He ſuffered more from the diſeaſe than any other of my patients, and his caſe put on more of a remittent than any other I had ſeen.

CAUSE NOT IN THE AIR, BUT IN SPECIFIC CONTAGION.

I would not be underſtood by what I have ſaid relative to the influence of the weather

that

that the cauſe of the diſeaſe is to be looked for in the air alone. This is only a prediſpoſing cauſe. Becauſe cold air can give birth to a common catarrh, are we to conclude it can give birth to the influenza? Cold, moiſt air, renders, indeed, the application of a materies morbi more effectual.

We have many examples to prove, that the air cannot hold, nor yet convey contagion to any great diſtance. If it be mixed with the atmoſpheric air, it is ſoon diſſipated; nay, it may be, perhaps, chemically decompoſed, if it be a compound body, and thus its nature altogether changed. Experience ſhews, that contagions have always been communicated by contact with the infected, either *mediately*, or *immediately*, i. e. by perſons who bring it on their clothes to the perſons who receive it; or by its being conveyed to the infected in various kinds of goods. I mean here all ſpecific contagions, ſuch as the ſmall pox, &c. or thoſe from human effluvia, ſuch as produce fevers of a dangerous nature. We are now very well aſſured, that the plague, the moſt infectious of all diſeaſes, is not communicated by the air, but by contact.

The Europeans, who live in thoſe countries where it is endemic, and do not believe in the deſtructive tenets of fatality, prudently ſhut themſelves up in their houſes, and with the utmoſt care ſhun the infected. By this precaution they eſcape. Hence the plague is found in one ſtreet raging with all its ſeverity, while the inhabitants of the next remain unmoleſted.

Bad weather may, and does often act on the body ſo as to debilitate it, by which means it becomes more diſpoſed to receive any diſeaſe that rages at the time. Whatever debilitates the body, we know, has the ſame effect. In countries where intermittents prevail, they attack the weakly and debilitated, while the more robuſt paſs free.

The late Dr. Gregory was one of twenty-five young gentlemen who left Great Britain to ſtudy under Boerhaave at Leyden; all of them, one excepted, lived pretty freely. This gentleman drank water, for the moſt part, while the others drank wine; and he was the only one who ſuffered from an intermittent, during ſome years that they purſued their ſtudies in this univerſity.

We

We are told, by an accurate obſerver, that wet and cold weather is more injurious to our conſtitutions, than the ſame with moderate warmth. Though the moiſt and warm be the moſt productive of acute and fatal diſeaſes, yet there is more danger, he tells us, in theſe reſpects, to our conſtitutions from the oppoſite. A ſteady ſet of any ſort of weather, he adds, may be productive of particular diſeaſes, and ſo is a quick tranſition from one extreme to another*.

We have already mentioned the unfavourable weather of this ſpring. From a meteorological regiſter kept by Mr. Becket, of Briſtol, we find, that in this city, the month of April was, for the moſt part, cloudy and diſagreeable. Rain part of ſeventeen days; two days of ſnow, and not one fair day. The wind chiefly from the north and eaſt.

May was ſtill worſe. "This month," he ſays, "no doubt will be remarkable in all the meteorological annals of Europe, for its unuſual degree of cold and humidity, with a gloomy and uncommonly diſturbed ſtate of the atmoſphere. It rained there part of twenty days, and all the others were cloudy

* Dr. Fothergill, vide Dr. Lettſom's Ed. 8vo.

and hazy; the wind generally between the ſouth and ſouth weſt, frequently ſtrong.

The next month, June, we find very variable; in the beginning it was cold and rainy; towards the middle, about a week or ten days, fair and warm; the latter part variable. A remarkable change was noticed which took place between the 17th and 18th, for between one and two in the afternoon, the thermometer ſtood as high as 89 degrees in the ſhade; and next day, in the evening, it ſunk as low as 55 *.

It has already been pointed out, that the attacks of the diſeaſe were not at the ſame time. If the cauſe lay in the air, all muſt have been ſeized at once; for, though it often ſpread rapidly, it was ſtill progreſſively, ſometimes ſlowly and gradually.

Others have alledged, that it took its riſe from the influence of the two ſuperior planets, Jupiter and Saturn, that appeared in a particular ſituation this year. An ingenious Surgeon at Plymouth, is among thoſe who embraced the opinion, that the planets gave riſe to the influenza which viſited us ſome years

* Vide Broughton on Influenza at Briſtol. 1782.

prior

prior to this *. If this be admitted once, it may be admitted again, and therefore we ought to conſider how far it is founded in fact, before we aſſent to it.

That they might, by their great attraction and influence, joined to thoſe of the other heavenly bodies that affect this terraqueous globe, be a cauſe of the unſeaſonable weather we experienced, I ſhall not venture to diſpute; but at the moſt, this will prove no more, than that this bad weather was favourable to the diſſemination of any infectious diſeaſe appearing at this time. No writer, as far as I know, maintains, that it was always influenza that raged at thoſe times, when the planets were in ſimilar ſituations. Beſides, the diſeaſe has appeared when they were very differently ſituated, ſo that recourſe could not be had, with the ſame reaſon, to their greater influence on the earth. I paſs over the opinion as too ridiculous, that the moth frequent about London, called by Curtis the brown tail moth, the caterpillars of which happened to be more than commonly numerous this ſpring, gave riſe to the diſeaſe. Thoſe

* Mr. Geach, F. R. S.

who believed in this, muſt have very ſuperficially conſidered the ſubject.

That the true cauſe ſprung from another ſource, a particular materies morbi, a certain contagion, I think will not require many arguments to prove; the following few may ſuffice.

The firſt who were ſeized with it at Norwich (I have it from good authority*) were two men lately arrived from London, where it then continued to rage. A ſerjeant of grenadiers, of the 10th regiment of foot, went to London on furlough; the diſeaſe then raged in the capital; he returned, in a few days, to St. Alban's, affected, and communicated it to the people in whoſe houſe he had his billet. This was the firſt time of its appearance there, and from thence it rapidly ſpread through all the town.

An officer of the ſame corps, being then in Dublin, told me he received the diſeaſe from a lady in whoſe company he ſat at dinner. She was then complaining of indiſpoſition from it; he ſat next her. Before he left the room he was ſeized, and did not compleatly

* Dr. Macqueen.

recover

recover in two months, having loſt his voice, and remäined hoarſe great part of this time.

One of Lord Bute's labourers, living on the banks of the river at Luton, happened to receive a compound fracture of his thigh, about the beginning of April, a month at leaſt before the influenza appeared there. When the reſt of the family were ſeized, though he had never been from his bed ſince the accident, yet he caught the diſeaſe, and ſuffered conſiderably. Here was no expoſure to the viciſſitudes of the weather. This fell under my own obſervation, as I attended him from the time of the accident, till after the epidemic had finiſhed its career.

I eſcaped the diſeaſe myſelf, though daily viſiting ſo many under it, till one day, when I was viſiting at a Clergyman's, and being deſired to give my advice to two of his ſervants then under it, and inſpecting their throats, of which they greatly complained, I received their breath full in my face. I thought at the inſtant I ſmelled ſome thing diſagreeable. Returning home about an hour after, I began to feel myſelf chilly, with a ſenſation as if ſomething ſtuck in my throat. In ten minutes after, I had a diſcharge of thin

thin mucus from my noſe, began to ſneeze, and felt a pain in my head. Though I had only four miles to ride to my lodgings, yet by the time I arrived, I felt myſelf extremely ill. Here muſt certainly be contagion; no quality of the air would ſatisfactorily account for this; the diſeaſe might have been in my habit before, but this day rendered it active. Another example of its contagious nature might be drawn from the crews of the Concert and Lizard men of war, eſcaping it till they came to that part of the Thames near Graveſend, called Long-Reach*.

We might prove it ſtill farther, was it neceſſary, from its gradual attack. This was very obſervable in many families where I viſited. The houſekeeper of a gentleman on the oppoſite ſide of the ſtreet to that where I lived, was not ſeized till more than ten days after I recovered, though her maſter often viſited me while I lay ill under it. The lady alſo of the clergyman already mentioned, and her two children, had the diſeaſe long before her maid ſervants were ſeized. Thus we find one was taken ill to-day, another to-morrow,

* Vide London Medical Journal.

and

and a third, perhaps, not till ſeveral days after. Is not this the uſual mode of ſeizure in all contagious diſeaſes?

Beſides, when we reflect on the ſymptoms of the influenza, we ſhall find them in general ſuch as denote debility. Far more proſtration of ſtrength united with it, than we ever find attend catarrhs from cold alone; and I am led to think this forms one of its chief diſtinguiſhing ſymptoms. "A catarrh," ſays a certain writer, "from the ſituation of our iſland, and from the viciſſitudes of the weather, with reſpect to heat and cold, may with the ſtricteſt propriety be looked upon as the endemic diſeaſe of Great Britain*. But catarrhs from this ſource alone, never bring with them ſuch loſs of the powers of exertion and univerſal aſthenia."

Whatever then may be the nature of this *materies morbi*, it is ſuch as always produces great alterations in the operations of the nervous ſyſtem, and the animal functions in general.

Few diſeaſes, putrid fevers excepted, ever produced loſs of ſtrength and debility more

* Vide Abuſe of Medicine, p. 57.

ſuddenly

ſuddenly than this. The crew of the Fly ſloop of war was an inſtance of this. The Captain affirmed, that 40 of his men fell ill in leſs than eight hours; ſeveral of whom, he declared, dropped down at the wheel as they ſteered the veſſel. This circumſtance obliged him to put back, and ſtand again for Yarmouth Roads, which he had only left a few hours before, with all hands apparently well, meerly for want of men to navigate the ſhip. The infection muſt have been received from ſhore, with which they had frequent communications.

The ſubject of contagion is an obſcure one; were we to enter on it, much indeed might be ſaid, but little at preſent with certainty. We might amuſe ourſelves with enquiring, wherein conſiſts its difference, by which it can produce in the human body diſeaſes ſpecifically different? Why one kind ſeems to exert its force on the mucous membrane of the trachæa, noſe, &c. and produce fever, as in the diſeaſe now under conſideration? Why another ſpends its fury on the ſkin, and perhaps cellular texture connected with it, as in the ſmall-pox? Why a third produces dangerous glandular ſwellings, both

externally and internally on the throat, with bright red eruptions covering the ſurface of the body, as in the ſcarlet fever? But theſe and other enquiries of this kind, it is proper to paſs over here, as it is matter of fact, not conjecture, I wiſh to confine myſelf to. Such ſhall be left in the ſtate we found them, envelloped in uncertainty and obſcurity, from which it is to be feared our preſent limited knowledge of the various combinations of matter will not allow us to evolve them; yet as the knowledge of the human mind is progreſſive, and every year adds to induſtrious inquiries ſome extenſion of phyſiological inveſtigation, I would not too raſhly conclude them inſcrutable. Was this inculcated, it would prove a check to induſtry, and become the nurſe of ignorance. Several things familiar to-day, in the beginning of the preſent century ſeemed as inſcrutable as the preſent ſubject; and another ſeries of years may produce as material diſcoveries in the natural world.

Of the FATALITY *of the* DISEASE.

In all the ſcope of country in which I was employed, during its continuance, not one

died

died immediately from it. My medical friends in London gave me much the ſame account. I find, however, by the bill of mortality publiſhed in the third volume of Medical Tranſactions, that there were a great increaſe of burials in May and June, which is attributed to it. Where it attacked weak and debilitated perſons, and thoſe far advanced in life, long labouring under chronic diſeaſes, eſpecially of the breaſt, it may doubtleſs have haſtened their death.

In Kent we are informed, it was not dangerous. A gentleman reſiding near the ſea coaſt ſays, "Few have eſcaped it, but I know not of a ſingle inſtance of danger*." It was ſaid to be fatal in Jerſey; but ſome doubt may remain concerning the diſeaſe, as every complaint was denominated influenza that appeared about this time. Mr. Friend, of Newbury, loſt only one patient; nor was he altogether certain the diſeaſe ſimply was influenza. From a curſory account of her ſymptoms, which he then relates, "I am inclined to doubt in like manner. As this caſe happened," he adds, "in June, when the in-

* London Medical Journal.

fluenza

fluenza was prevalent here, I have been diſpoſed to think it *partook* of the epidemic, though the ſymptoms were ſomewhat diſſimilar." Four among Mr. Binney's patients, of the ſame place, died. Two of theſe, he ſays, were 60 years old and upwards, and *very infirm* before the influenza ſeized them; the other two were alſo in advanced life.

At Royſton, I was told, that few or none died. In the neighbourhood of Cambridge I found a man who had loſt his wife, and, I think he ſaid three children by it; but this I am led to believe is likewiſe doubtful; it might likewiſe be compounded with the ague, a diſeaſe frequent there. At Yarmouth, on enquiry, I found that none died of it. I arrived there July 6th, very ſoon after it had ceaſed. My correſpondent from Stamfordham, (Mr. Scott) ſays, It only proved fatal in this neighbourhood in three inſtances. At Ipſwich in Suffolk, I cannot learn that it proved fatal in a ſingle inſtance.

CURE.

Among the means of cure, various in various perſons, which have been had recourſe to, none is of more material conſequence to

conſider than venæſection. On this head we ſhall beg leave to ſuggeſt a few things: thoſe who contended that they found it uſeful and neceſſary, generally gave the appearance of the buffy cruſt as one of their reaſons. This, it is well known, is a very fallacious teſt. It appears, on many occaſions, where V. S. is by no means warranted. We always find it in the blood of pregnant women, if their pregnancy be any thing advanced; and we meet with it often in the laſt ſtage of a conſumption, when the powers of the body are nearly exhauſted; it is likewiſe often found in dropſy, where we have little reaſon to ſuppoſe inflammation, and leſs ſtill, that V. S. would prove uſeful.

Coagulable lymph may be ſeparated in whitiſh or bluiſh ſtreaks on the ſurface of the blood; yet the craſſamentum, if compared to the ſerum, may be very diſproportionate. It may be ſmaller in quantity, perhaps a thin pelicle, and even ſometimes not very accurately ſeparated from the ſerum. The craſſamentum, on this appearance almoſt diſſolve on handling; or the under ſide may be ſo looſe as to fall in pieces when taken up for examination.

It

It is needleſs to mention here what every one knows who has attended to the ſubject, that the form of the cup the blood flows into, the ſize of the orifice, nay the very materials of which it is compoſed, with ſeveral things of this nature, are to be attended to in forming an opinion reſpecting blood*. Hence neither the preſence, nor yet abſence of the buffy cruſt is an abſolute guide to determine us for or againſt V. S. The denſity of the craſſamentum, the ſmall quantity of ſerum ſeparated, with perhaps its greeniſh colour, even ſhould no coagulable lymph appear, denote higher degrees of inflammation and greater activity in the arterial ſyſtem, often times, than when the buffy coat covers the ſurface. The firſt drawn cup often ſhews none ; the ſecond and third, perhaps, abound with it.

Inflammatory blood, denoting general V. S. is not only denſe, but the lymph on its ſurface, when it ſhews itſelf, is tough and thick, ſtill growing tougher by handling, contrary to what it does when it appears in debilitated habits. The craſſamentum is often found contracted on its ſurface, ſomewhat

* Vide Hay, on the Blood.

into the form of a cup, with the under-ſide of the cake ſolid and tough. Nor ſhould we be led always to judge of the propriety of V. S. even from the pulſe, without maturely weighing every circumſtance of the caſe, and ſymptoms with which it is attended. A ſmall pulſe ſhould not always deter us from the uſe of the lancet; nor yet a large pulſe, apparently ſtrong under the fingers, urge us to it; for the one, even from a trifling loſs, a few ounces, will ſometimes ſink, and proſtration and debility ſo rapidly follow, that all our endeavours may not be able to repair the injury occaſioned by it: while the other riſes as we begin to draw off the blood, and bears with manifeſt advantage a large loſs of blood. A dyſpnœa is another ſymptom for which V. S. has been commonly inſtituted; but here, likewiſe, the ſame caution ought to be obſerved; for it not unfrequently takes place from debility; and this is manifeſted from its often following too much depletion; every one who has ſeen it improperly inſtituted, and repeated for this ſymptom in rheumatiſm, will be fully convinced of the truth of this obſervation; inſtead of remedying this ſymptom, every repetition encreaſes it; and the anxiety alſo

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with which it is attended: and that on a corroborating plan being purſued, it is as gradually and effectually removed. Theſe things duly attended to, ſhould teach us caution, at all times, in the uſe of the lancet. To theſe may be added that the ſymptoms, as already obſerved in the influenza, were, for the moſt part, ſuch as to deter the cautious from V. S. Even in thoſe caſes where it ſeemed admiſſible, it was to be done with care, and after nice obſervation.

We found that for the moſt part the pulſe was ſoft, indeed very rarely hard; that it was ſmall and debile; even ſeldom full, and betraying very little activity in the arterious ſyſtem, with pains in the back and loins, vertigo, rigors, &c.

Some inflammation I will allow; the ſtate of the mucous membrane proved, there was a degree of it preſent. We know a degree of it exiſts in a chronic rheumatiſm; yet V. S. is ſeldom advantageouſly uſed in this complaint. For if it be puſhed to any degree, a paralytic affection might be the conſequence, or rather marks of aſthenia equally bad.

Who would at this day think of employing V. S. in the putrid ſore throat; yet we find from the authors who have treated on the ſubject, that the blood often ſhewed the buffy coat. Dr. Fothergill ſpeaking on the ſubject, expreſsly ſays, after telling us the blood was of a freſh florid colour, and the craſſamentum lax, &c. "But it is often ſizy when the diſeaſe has continued two or three days; and in ſome inſtances that lately occurred, it was ſo ſoon after the firſt attack*:" yet it is well known bleeding never cures the diſeaſe: nay, tho' it relieves for a little time by taking off the ſenſe of the plethora, and eaſing the breathing, it only ſerves, if often repeated, to weaken the ſyſtem, and reduce the miſerable patient ſtill farther.

I call it plethora here, whether in relation to the encreaſed quantity of blood, or other fluids; or, in the diminiſhed force of the heart, unable now to propel the blood, ſo as to dilate the artery with its accuſtomed eaſe. It is this laſt plethora that ſeems ſometimes to exiſt in hectic habits, where V. S. ſerves only to augment the degree of debility. The

* Vide Fothergill's Works.

blood

blood is therefore leſſened in quantity, and thus the plethoric ſymptoms are, for a time, relieved; but the veſſels ſoon accommodate themſelves to their leſſened contents, whereby a ſimilar ſpurious plethora is again induced. V. S. is repeated with a view to remove this ſenſation, and ſo on, till the powers totally ſink. I have ſomewhere read of an inſtance where the patient died under the operation.

In the peripneumonia notha of Huxham, we find him diſſuading from V. S. though at the ſame time he admitted the preſence of conſiderable inflammation. Practitioners in different parts of the iſland confeſſed, that in the epidemic, of which we are treating, little of the inflammatory cruſt appeared on the blood. This was the caſe at Yarmouth. The ſurgeons there found it always florid, and looſe in its texture: they bled, however; but they obſerved, it never gave that permanent relief, which, from the ſtraitneſs of the cheſt, they expected from it.

In a letter from Stamfordham I find that V. S. was pretty generally uſed there in the beginning of the epidemic; but they found reaſon to alter their practice, as they became more acquainted with its nature. "But

" now," ſays my correſpondent, " the diſeaſe has taken another turn ; though the patient complains of achs and pains all over him, particularly about the breaſt ; and if you bleed him, the inflammatory cruſt, as it is called, manifeſtly puts on its appearance, yet notwithſtanding all theſe ſymptoms which indicate V. S. the diſeaſe, at leaſt, in our part of the country, does not bear bleeding ; for the pulſe becomes weak, and there is great debility and languor hangs upon them." In a ſecond letter on the ſubject he ſays. " At leaſt it ſeemed to run a good deal into the low and putrid ; ſo that we were obliged to give cordials and antiſeptics. Dr. Macqueen ſays, the only one that died there, was a man that had been *twice* bled, and he was of opinion this contributed to his death.

By what has been ſaid I would not be underſtood to mean a total diſſuaſion from V. S. in every caſe. I doubt not but the phlogiſtic diatheſis prevailed ſo much in many patients, as to indicate V. S. and that much relief was afforded by it. Patients were differently affected, according to circumſtances of habit, place, &c. when V. S. was uſed, with proper circumſpection to the nature of the epidemic,

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the habit, &c. and in the robuſt and ſtrong, no doubt can remain of its utility; but this is far different from that promiſcuous uſe of the lancet, which I fear too often took place. It happened frequently that patients inſiſted on being bled; they never failed to find thoſe who complied with their deſire: "Many were bled by my young man," ſays a ſurgeon, "without advice."

I ſuffered from the diſeaſe ſeverely, being ill upwards of three weeks, though but a few days confined to bed: the nature of my ſituation, and the numbers I was obliged to viſit, prevented me from taking that care of myſelf which I recommended to others. My throat was much inflamed; the external fauces conſiderably ſwelled, and other ſymptoms of a phlogiſtic diatheſis preſented; yet, from univerſal pains on motion, a lowneſs of ſpirits, rigors, and a ſlight vertigo, I would not ſuffer myſelf to be bled. I truſted to gentle diaphoretics, laxatives, and diluting drinks acidulated, with a linctus to mitigate the burning heat and pain I felt in my throat. Dr. Macqueen told me he ſuffered alſo much by it, and being ſubject to catarrhal affections, which V. S. always relieved, he had recourſe

to it; but though he found it productive of ſome benefit to his head-ach for a ſhort interval, yet his complaints rather recurred with additional force; from which he concluded, that V. S. did not give that permanent relief in the diſeaſe, as, from the ſeeming inflammatory ſymptoms, there was reaſon to expect. We find it was frequently tried both at Bath and Briſtol; it did not anſwer in either place.* Neither Sydenham nor Huxham ſpeak favourably of V. S. in the influenza; yet the latter eſpecially had good experience, ſince he practiſed in no fewer than in three epidemics of the diſeaſe. Dr. Fothergill † ſpeaking, on another occaſion, of V. S. and diſſuading from its free uſe, unleſs we be perfectly certain of conſiderable inflammation of internal parts, has theſe words; "This is only intended as a caution to ſome who have been taught to think, that copious bleeding is indicated whenever a patient complains of pain in any part of the region of the thorax." And in another place

* Vide Treatiſe on Influenza, by Broughton and Falconer.

† Lettſom's edit. of Dr. Fothergill's works, 8vo. v. 1. p. 219.

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he cautions us to judge of its propriety, " not from the appearance of the blood alone; for this will often continue ſizy, till more be taken away than is compatible with the patient's ſituation in other reſpects; for if we leſſen the vires vitæ," ſays he, " by inanition too much, a diſeaſe then takes place, which probably will increaſe our difficulty, *i. e.* debility of the ſolids, and the conſequent vitiation of the fluids; the pulſe, the heat, the cough, reſpiration, ſtrength and age of the patient ſhould all be taken into conſideration. Many perſons," he adds, " live free from complaints with ſizy blood; the condition, therefore, of the blood ſingly, ought not to determine us; we ſhould examine all the evidence. *"

The recovery from the diſeaſe we always found ſlow, in ſuch as ſuffered much from it; ſo great was the debility, that it was weeks before the patient's ſtrength was recovered, though in others the diſeaſe was ſlight, and left ſlight marks of debility behind it. This is ſtill a farther proof, that in general there was little of the phlogiſtic diatheſis in the ſyſtem.

* Fothergill, vol. II. p. 136.

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We never obſerve ſuch great debility after pleuriſy or peripneumony, except phlebotomy has been injudiciouſly proſecuted ; in ſuch caſes indeed, the patient will not only be weak long after, but obnoxious in ſuch caſes to ſerous effuſions. The diſſections of induſtrious practitioners ſhew, that theſe often follow inflammatory diſeaſes, where the lancet has been improperly uſed. " It is an undoubted fact," ſays a modern author, ſpeaking on V. S. " that repeated bleeding without neceſſity has greatly injured many conſtitutions." The catarrh may frequently attack delicate relaxed habits, which are rendered highly irritable from exceſs of heat, and unhappily obnoxious to the diſeaſe, from expoſure to cold. In theſe as in more robuſt conſtitutions the catarrh is often perfectly pure, unaccompanied with peripneumonic affections or ſuch other ſymptoms as indicate bleeding*.

Beſides, I am apt to think our conſtitutions conſiderably changed within this laſt century in Great Britain. Luxury and its enervating effects, render the diſeaſes of this iſland leſs inflammatory than perhaps they formerly

* Abſtract of Medicine, p. 60.

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were. Diſeaſes that in their nature were always, and even now are allowed to be phlogiſtic, have appeared within the ſpace of theſe laſt 30 years, accompanied with a conſiderable degree of putridity, *viz.* the meaſles; we uſe leſs of the robuſter exerciſes than formerly. Carriages are more frequent, delicacy greater: nay, many of our occupations introduced by philoſophy within the laſt century, are of a ſedentary kind. Our amuſements are of a leſs active nature; our articles of diet are in like manner changed, and infuſions of tea, a debilitating liquor, injurious to the nervous ſyſtem, are in ſuch common uſe, that even paupers feed on them. Many among the poor drink it three times a day, making it their chief ſubſiſtence, among whom, both from its quantity and bad quality, it is productive of injury. We may add the immoderate uſe of ſpiritous liquors; and of theſe much is to be attributed to gin. Many among the lower rank are ſo habituated to it, that both health and ſubſtance ſuffer; hence often proceed jaundice, ſchirri, and many diſeaſes formed by obſtructions in the nobler viſcera. All theſe concur to ſtrengthen an opinion I have for ſome time

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entertained, that our diſeaſes partake much more of debility than of genuine inflammation, and that the ſyſtem cannot bear the ſame evacuations as formerly were in uſe, even in diſeaſes univerſally allowed to be of the phlogiſtic type.

To conclude, I am of opinion, that the fever which accompanied this catarrhal affection, ſhewed, in moſt places, more marks of aſthenia than of phlogoſis; that V. S. has not uſually been attended with permanent relief; and that ſhould we again be viſited with it, under the ſame circumſtances and train of ſymptoms, we ſhould profit by our late experience, and uſe the lancet with caution, never letting ſlip from our minds the nature of the contagion, which certainly appears from its effects, to be of a debilitating nature; and ſince, to uſe the words of a certain author, "If V. S. be uſeful in preſerving life, it is alſo powerful in deſtroying it.*." Thus far of bleeding in the influenza.

The natural criſis of this complaint appears to be by the ſkin. Diaphoretics, therefore, and diluents conſtitute the chief part of the

* Abuſe of Medicine.

cure.

cure. Emetics, or rather nauſeating doſes of antimonials, when early uſed, ſeemed very ſerviceable: they are diaphoretic; they alſo prove expectorant when given in full doſes; and in this ſenſe they ſeem uſeful in the beginning of the diſeaſe. They generally prove laxative, cleanſing the primæ viæ; nay, they become hypnotic, for generally ſpeaking, the ſleep of the ſucceeding night is ſounder, eſpecially when they have been exhibited in the evening. They open obſtructions in veſſels, whereby the different ſecretions are more equally performed; and thus by one ſimple medicine, we have often times various purpoſes anſwered: a happy choice of a ſimple, the doſe, and time of exhibition maturely weighed, will, for the moſt part, anſwer better than a multiplicity of medicines jumbled in a preſcription, and ſave the patient not only from much uneaſineſs, which would be created by loading the ſtomach too much with medicines it abhors, but from unneceſſary expenditure of his money. A conſcientious phyſician will alſo have this in view.

Conſiderable advantage has likewiſe been attained from the prudent uſe of opiates, where the cough was ſevere, as was moſtly

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the caſe : they alſo determine to the ſurface. Though their chief uſe ſeems to conſiſt in the reſpite they give to the cough, the removal of irritation, and thus allowing time to the mucous membrane to recover its tone; by this means the diſcharge decreaſes, and the habit in the mucous glands to a vitiated ſecretion, is thereby checked.

Nitre has been celebrated for relieving the cough, and I, with others, have ſometimes had recourſe to it. I would, however, be cautious in its frequent exhibition, as it ſometimes renders worſe the very ſymptom for the relief of which it had been adminiſtered. Others have made the ſame obſervation. "I have known," ſays Fothergill, "the common doſe of nitre, the ſaline draughts, and other cooling ſalts, encreaſe a cough by irritation *"

I found a generous diet, where it was in the patients power to procure it, highly conducive to a more ſpeedy recovery; and even in the courſe of the diſeaſe, many bore a more liberal uſe of wine, than is generally given in catarrhal affections from cold alone.

* Vol. II. p. 133.

After

After what has been ſaid, I need ſcarcely diſſuade from the warmer ſudorifics, or ſtronger purges. Theſe were always found as prejudicial, as diaphoretics and laxatives were uſeful.

A cautious diſcrimination between it and other diſeaſes appearing ſporadically at the ſame time, ſhould moſt certainly be kept in view; for where it becomes thus confounded, the method of cure muſt alſo vary; and more or leſs of the inflammatory diatheſis prevailing, may lead to miſtakes with reſpect to the genuine nature of the diſeaſe. Not only the weather, ſituation, and conſtitution, but intercurrent diſeaſes all unite to vary the appearance of the epidemic; to all of which the cautious and prudent practitioner ought ſtrictly to attend.

Pediluvium determines alſo to the ſurface, encourages a larger ſhare of the blood from the head and ſuperior parts, to the lower; is generally followed by ſleep, relieves delirium, moderates the cough, and removes ſickneſs at the ſtomach, from the great ſympathy between this organ and all parts of the body, but eſpecially with the ſurface. Hence I frequently ordered it, and with advantage; but

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at firſt I was timid, conſidering the diſeaſe as of a more inflammatory nature, than a little practice taught me it was; and therefore I never ſuffered the patient to ſit in the water above a few minutes; but from its inducing a quiet night's reſt, and from its being often followed by a gentle diaphoreſis, when aſſiſted with a few drops of antimonial wine; I continued it, in many caſes, to nearly half an hour, taking care not to keep the water at ſo high a degree of heat, as to create too much ſtimulus, and produce an increaſed action in the arterious ſyſtem. This is another remedy, powerful in producing different, and even oppoſite effects, according to the mode of its application, as is well known to practitioners.

I ſay nothing of bliſters, as I had ſeldom occaſion to uſe them in my practice. Others, I find, often tried them with good effects; where vertigo or delirium occur, or where the breathing is difficult, they will doubtleſs have their utility, as alſo where langour prevails. They may raiſe the pulſe where it is thought too low, by rouſing the vis vitalis to greater action, or they may remove topical congeſtion. Though a bliſter may draw off

but a ſmall quantity of ſerum, yet much relief may be derived from it to the turgid veſſels; this will readily be granted, when we conſider how large a portion of the finer veſſels, ſo ſmall a quantity even as half an ounce will fill, and how great an alteration will take place from thence in the balance of the ſyſtem, by an over proportion to this amount in a given ſpace; but whether their chief uſe was as evacuants, or antiſpaſmodics, it is affirmed, they were followed by happy effects in this epidemic.

Practitioners in various parts found the bark uſeful. I doubt not but it was ſo where the diſeaſe put on more of the appearance of intermittent, or remittent, and where it was accompanied with ſymptoms of putreſcency, which ſeveral affirmed it to be. In low ſituations, ſuch as the fenny parts of Cambridgeſhire and Lincolnſhire, where fevers from marſhy effluvia are endemic, the bark, and antiſeptics and tonics, muſt be more requiſite than in drier ſituations; but I forbear any farther remarks on the method of cure, for the ſame reaſon I omitted mentioning the other concomitant ſymptoms.

Although the diſeaſe, conſidered ſimply in itſelf, may be looked upon as of little conſequence, ſince it was often mild, and ſeldom fatal, if not improperly treated, either by bleeding, or by the uſe of too heating and irritating medicines, or by entire neglect, yet its cauſes, progreſs, and mode of attack, may not be deemed altogether unworthy of the attention of the medical philoſopher; and to afford ſome hints in furthering this enquiry, was my principal reaſon for collecting the foregoing obſervations.

I ought however to apologiſe for my prolixity on a ſubject where ſo much has already been ſaid; but as I had early committed to paper a few thoughts on it, and laid them before the public *, I judged it expedient to continue my reſearches, that I might be the better enabled to ſupply ſome circumſtances which were omitted in my former publication.

* Vide Short Account of Influen. by R. Hamilton, 1782.

THE END.

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ERRATA.

VOL. II.

CHAP. XII. p. 57. l. 15. after *to be* add *more*— p. 73. l. 2. for *he* read the *delinquent*—p. 74. l. 8. for a *careful* read *carefully*.

CHAP. XIII. p. 84. l. 7. for *gaſs* read *Gaſes*.—p. 130. note for *Tartaniſot* read *Tartariſat*

CHAP. XVI. p. 209. l. 12. for *heſe* read *theſe*

CHAP. XVII. p. 251. in note for *Cooper's* read *Cowper's*—p. 295. l. 1. for *Glcerrh* read *Glycyrrh*.—p. 300. l. 4. from bottom, for *Glycerrh* read *Glycyrrh*.—p. 307. l. 5. after *miles* read *North Weſt*—p. do. l. 5. from bottom, for *in* read *near*—p. 309. l. 3. for *Sward* read *Swerd*—p. 311. l. 6. for 122 read 123